KALASALINGAM
ACADEMY OF RESEARCH AND EDUCATION
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Anand Nagar, Krishnankoil - 626126, Srivilliputtur (via), Virudhunagar District, Tamilnadu.

APPLICATION FOR ADMISSION TO Ph.D. PROGRAMMES

Date of Application:16-12-2020

Department	COMPUTER SCIENCE AND ENGINEERING	Application No.	202020111
Area of Research	APPLIED, INTERDISCIPLINARY RESEARCH CONCERNING APPLICATION OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING TO PHARMACY INFORMATICS DURING COVID TIMES.	Research Mode	PART TIME

Name :M MAHESH BABU

Date of Birth / Age :04-12-1985 / 35 Years

Gender :MALE

Category :BC

e-Mail ID :doctor.mahesh.phd@gmail.com

Mobile :8105846094

Father's/Husband's Name	DR. MARIAPPAN	**Father's/Husband's Occupation**	MEDICAL DOCTOR
Family Income	12 LAKHS	**Residental Type**	URBAN
Birth Place	ERODE, TAMIL NADU	**Mother Tongue**	TAMIL
Religion	HINDU	**Martial Status**	MARRIED
Aadhaar No.	699518475558	**PAN No.**	CEAPM4235F
Physically Challenged	NO	**Type of Disability**	-

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G2, SPL BAY BREEZE APARTMENTS NO.9, NEW BEACH ROAD, VALMIKI NAGAR, BEHIND RTO CHENNAI CHENNAI DISTRICT TAMIL NADU INDIA Pin-600041	11/15 THOTTAKARA STREET, MOHANUR NAMAKKAL NAMAKKAL DISTRICT TAMIL NADU INDIA Pin-637015

Qualification

Degree	Discipline	College/university	Year Passed	AVG/CGPA	Class	Mode
B.TECH	INFORMATION TECHNOLOGY	MADRAS INSTITUTE OF TECHNOLOGY, ANNA UNIVERSITY	2007	81	FIRST	REGULAR
M.S (USA)	COMPUTER SCIENCE	UNIVERSITY OF TEXAS AT DALLAS, USA	2011	91	FIRST	REGULAR
PHD (USA)	COMPUTER SCIENCE	UNIVERSITY OF TEXAS AT DALLAS, USA	2012*	91	FIRST	REGULAR

Experience

Organization	Designation	Experience From	Experience TO	Work Nature

VITALIC HEALTH PVT LTD	DELIVERY HEAD, DATA SCIENCE	2018-12-17	2020-12-16	BUILDING MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE SOLUTIONS FOR THE PHARMA INDUSTRY

Payment Details				
Transaction ID	Reference	Date of transaction	Amount	Status
202020111_201216182652	VHMP9565097557	16-12-2020	600	SUCCESS

RESEARCH PROPOSAL

AUTHOR - MAHESH BABU MARIAPPAN

DATED: DECEMBER 16, 2020

TYPE OF RESEARCH

Applied, Interdisciplinary Research Concerning Application of Artificial Intelligence and Machine Learning to Pharmacy Informatics During COVID Times.

TITLE

Large Scale Real-World Study on Improving Therapeutic Supply Shipment Times During COVID-19 Pandemic Response in Indian e-Pharmacy Using Artificial Intelligence and Machine Learning With Pre-Lockdown and Post-Lockdown Comparisons.

ABSTRACT

It is said that, "that which cannot be measured cannot be improved." In this day and age of COVID-19 and the speed with which it is ravaging countries across the globe, it is fair to say that, "that which cannot be forecast and predicted well in advance, cannot be acted upon." On one hand, the world is facing a pandemic with unprecedented challenges in terms of discovering COVID-19 therapies and COVID-19 vaccines. On the other hand, governments and institutions around the world are grappling with the unparalleled distribution problem of delivering COVID-19 therapeutic supplies and vaccines to the population. As researchers, we strongly believe that Artificial-Intelligence and Machine Learning are key to solving the myriad of problems within the COVID-19 ecosystem. In this research, we are focusing on the COVID-19 therapeutic supply shipment problem. More specifically, we are particularly focusing on the sub-problem of predicting in advance shipment times of essential medicines and vaccines during the COVID-19 pandemic response. To this effect, we would research into and publish papers on real-world solution to the problem mentioned above.

KEYWORDS

COVID-19, Corona Virus, Pandemic Response, Medicine Shipments,
e-Pharmacy, Real-world Study, Artificial Intelligence, AI, Machine Learning.

INTRODUCTION

In this research proposal, we are presenting applied, interdisciplinary research concerning application of Artificial Intelligence and Machine Learning to solve the therapeutic supply shipment problem during COVID-19 pandemic response. COVID-19 first appeared in the month of December 2019. It was determined to be caused by the novel Corona virus, named as SARS-CoV-2. The disease causes symptoms such as shortness of breadth, dry cough, fever, fatigue, or sometimes even loss of taste and smell. In a lot of patients the disease is asymptomatic, causing no symptoms. The complications of the disease include pneumonia, respiratory failure, Cytokine release syndrome, viral sepsis, Acute respiratory distress syndrome, Kawasaki disease, among others. The usual onset of the disease is between 2 to 14 days, and it can last from 5 days to more than a couple of quarters. Diagnostic methods include CT Scans of patients and rRT-PCR testing of nasopharyngeal swabs. Since the SARS-CoV-2 virus is easily killed by household soap, COVID-19 disease is said to be prevented by washing hands frequently, and keeping unwashed hands away from the face. Wearing face masks, practicing physical distancing and quarantine are effective controls.

The disease which originated in Wuhan, China, quickly reached pandemic proportions affecting almost all the countries of the world. Within a year, it affected a total of more than 70 Million humans and killed more than 1.6 Million of them. SARS-CoV-2 virus spreads from one infected person to other persons mainly through small droplets and aerosols, which get transmitted when an infected person, say person A, who is in close proximity with an uninfected person, say person B, coughs or sneezes. When person B comes in contact with these small droplets and aerosols and these get into his eyes, nose or mouth. An average of 1000 SARS-CoV-2 virions can initiate new infections. This happens regularly when people interact closely and for longer periods of time within closed settings such as offices, restaurants, mass gatherings, etc. As of January 2021, no effective drug has been developed to inhibit the SARS-CoV-2 virus. Therefore, treatment choices are mainly focused on management of symptoms, isolation of patients and supporting them with care until their test results return negative multiple times.

DRUG DEVELOPMENT

Various antiviral medicines/drugs are being researched into for possible cures for COVID-19. As of December 2020, more than 500 therapies are in various stages of preclinical or clinical research. These include RNA-based compounds, cell-based compounds, anti-virals, antibodies, anti-inflammatory agents, anti-malarial drugs, interferon, antibiotics, among others. The World Health Organization (WHO) started the solidarity project in March 2020 to test and repurpose hundreds of potential drug candidates, already approved as safe for other diseases. The project aims to provide insights and answers into key clinical questions such as the

potential of drug candidates to reduce hospitalization time, mortality rate, number of ICU admissions and the number of cases requiring ventilation. Remdesivir, Dexamethasone, and Baricitinib, have already been proven to have clinical benefits in randomized controlled trials.

NEED FOR AI AND ML TO PREDICT COVID-19 DRUG SHIPMENT TIMES

About 15% of COVID-19 patients go on to develop severe complications, thereby overwhelming hospitals and health-care institutions. It is therefore important to predict shipment times of drugs, vaccines and COVID-19 therapeutic supplies well in advance. This helps in planning and optimizing the e-pharmacy supply chain network, thereby ensuring that the drugs, vaccines and COVID-19 therapeutic supplies reach the right place at the right time, consequently saving lives.

We are basing this research in India for the following reasons. Firstly, India is one of the largest hit countries of the world in terms of the cumulative number of cases of COVID-19. Secondly, India is the second most populous nation in the world, making COVID-19 drug and vaccine supply chain distribution, a problem of unimagined scale. Thirdly, COVID-19 being a global pandemic, makes it imperative that if India isn't able to control the COVID-19 situation within its borders well, then it would become a liability to the whole world because of the interconnectedness of India and the rest of the world nations. The above mentioned reasons all compound together to result in a myriad of most unprecedented and ginormous problems facing the COVID-19 ecosystem in the history of mankind. Tough situations call for tough application of thought. As authors, we therefore took to modern-day Artificial Intelligence and Machine Learning technologies to bring sanity to this pool of COVID-19 problems.

We wanted to do our part, and hence we picked the therapeutic supply shipment problem during the COVID-19 pandemic response. Partly overwhelmed by the speed of spread of the COVID-19 disease among the population on a daily basis, we came to realize that if we need to control this COVID-19 pandemic, we cannot just passively observe and act, but we need to forecast, predict outcomes, stay ahead, and act proactively. That led us to Artificial Intelligence and Machine Learning. Just like we started off this proposal saying that, "that which cannot be forecast and predicted well in advance, cannot be acted upon," we would apply Artificial Intelligence and Machine Learning to predict the shipment times of essential medicines and vaccines during the COVID-19 pandemic response.

UT DALLAS
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One-Click Degree Verification

800 West Campbell Rd. SSB 13
Office of the Registrar
Richardson TX 75080
(972) 883-2342

This eDiploma has been digitally Signed and Certified on behalf of the University of Texas at Dallas.

Mahesh B. Mariappan

Institution: University of Texas at Dallas
Degree: Master of Science
Graduation Date: December 24, 2011
Other Detail: Computer Science

Jennifer McDowell, University Registrar

This eDiploma was digitally Signed and Certified on May 17, 2020.

eDiploma - Signed and Certified PDF

To validate the Signature and Certification of this eDiploma, you must open this PDF with Adobe Reader or Adobe Acrobat. You will see a Blue Ribbon at the top of the document validating the digital Signature used to Certify this eDiploma.

Michael Sutter
DOCUMENT CERTIFICATION SERVICES

eDiploma on page 2

The University of Texas at Dallas

This Certifies That

Mahesh B. Mariappan

has completed the required course of study and is therefore awarded

the degree of

Master of Science in Computer Science

with all the rights and privileges thereunto appertaining.

In Witness Thereof, this diploma is granted by the Board of Regents

upon the recommendation of the Faculty.

Presented at Dallas, Texas, on this twenty-fourth day of December, two thousand and eleven.

Wm. Eugene Powell
Chairman, Board of Regents

Francisco G. Cigarroa
Chancellor

THE UNIVERSITY OF TEXAS AT DALLAS
DISCIPLINA PRAESIDIUM CIVITATIS

Dail E Daniel
President

Hobson Wildenthal
Executive Vice President and Provost

The University of Texas at Dallas

FICE CODE: 009741

Richardson, TX 75080-3021

Official Transcript

Name: Mariappan,Mahesh

Send To: Mahesh Mariappan
6447 Churchill Way
Dallas, TX 75230-1868
United States

Degrees Awarded

Degree: Master of Science
Confer Date: 2011-12-24
Degree GPA: 3.642
Plan: Computer Science

External Degrees

Anna University
Bachelor of Technology 2007-05-15

Student ID: 2011161466
SSN: 634-11-0139

Print Date: 2012-07-03

Beginning of Graduate Record

2007 Fall

Program: Doctoral
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	5301	ADV PROFESSIONAL & TECH COMMUN	3.000	3.000	B	9.000
CS	6360	DATABASE DESIGN	3.000	3.000	B	9.000
CS	6363	DESIGN & ANALYS-COMP ALGORITHM	3.000	3.000	A	12.000

			Attempted	Earned	GPA Uts	Points
Term GPA	3.333	Term Totals	9.000	9.000	9.000	30.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	3.333	Comb Totals	9.000	9.000	9.000	30.000
Cum GPA	3.333	Cum Totals	9.000	9.000	9.000	30.000
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined Cum GPA	3.333	Comb Totals	9.000	9.000	9.000	30.000

Academic Standing Effective 2007-12-03: Good Standing

2008 Spring

Program: Doctoral
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	6V81	SPEC TOPICS IN COMPUTER SCIENC	3.000	3.000	A	12.000
Course Topic:		MULTIMEDIA SYSTEMS				
CS	6364	ARTIFICIAL INTELLIGENCE	3.000	3.000	B	9.000
CS	6390	ADVANCED COMPUTER NETWORKS	3.000	3.000	B	9.000

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Name: Mariappan,Mahesh

			Attempted	Earned	GPA Uts	Points
Term GPA	3.333	Term Totals	9.000	9.000	9.000	30.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	3.333	Comb Totals	9.000	9.000	9.000	30.000
Cum GPA	3.333	Cum Totals	18.000	18.000	18.000	60.000
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined Cum GPA	3.333	Comb Totals	18.000	18.000	18.000	60.000

Academic Standing Effective 2008-05-07: Good Standing

2008 Summer

Program: Doctoral
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	6V81	SPEC TOPICS IN COMPUTER SCIENC	3.000	3.000	A	12.000
Course Topic:		PERVASIVE HEALTHCARE				
CS	8V07	RESEARCH	6.000	6.000	P	0.000

			Attempted	Earned	GPA Uts	Points
Term GPA	4.000	Term Totals	9.000	9.000	3.000	12.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	4.000	Comb Totals	9.000	9.000	3.000	12.000
Cum GPA	3.429	Cum Totals	27.000	27.000	21.000	72.000
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined Cum GPA	3.429	Comb Totals	27.000	27.000	21.000	72.000

Academic Standing Effective 2008-08-13: Good Standing

2008 Fall

Program: Doctoral
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	8V07	RESEARCH	9.000	9.000	P	0.000

			Attempted	Earned	GPA Uts	Points
Term GPA	0.000	Term Totals	9.000	9.000	0.000	0.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	0.000	Comb Totals	9.000	9.000	0.000	0.000
Cum GPA	3.429	Cum Totals	36.000	36.000	21.000	72.000
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined Cum GPA	3.429	Comb Totals	36.000	36.000	21.000	72.000

Academic Standing Effective 2008-12-17: Good Standing

2009 Spring

Program: Doctoral
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	6V81	SPEC TOPICS IN COMPUTER SCIENC	3.000	3.000	A	12.000
Course Topic:		STATISTICAL NATURAL LANGUAGE P				
CS	6V81	SPEC TOPICS IN COMPUTER SCIENC	3.000	3.000	A	12.000
Course Topic:		ASSNG LRNG ABIL OF ADHD STDNT				
CS	8V07	RESEARCH	3.000	3.000	P	0.000

			Attempted	Earned	GPA Uts	Points
Term GPA	4.000	Term Totals	9.000	9.000	6.000	24.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	4.000	Comb Totals	9.000	9.000	6.000	24.000
Cum GPA	3.556	Cum Totals	45.000	45.000	27.000	96.000
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000

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Name: Mariappan,Mahesh

Combined Cum GPA	3.556	Comb Totals	45.000	45.000	27.000	96.000

Academic Standing Effective 2009-05-13: Good Standing

2009 Fall

Program: Doctoral
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	8V02	TOPICS IN COMPUTER SCIENCE	3.000	3.000	P	0.000
CS	8V07	RESEARCH	3.000	3.000	P	0.000
CS	6365	DATA/TEXT MINING COMPUT BIOLOG	3.000	3.000	A	12.000

			Attempted	Earned	GPA Uts	Points
Term GPA	4.000	Term Totals	9.000	9.000	3.000	12.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	4.000	Comb Totals	9.000	9.000	3.000	12.000
Cum GPA	3.600	Cum Totals	54.000	54.000	30.000	108.000
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined Cum GPA	3.600	Comb Totals	54.000	54.000	30.000	108.000

Academic Standing Effective 2010-01-06: Good Standing

2010 Spring

Program: Doctoral
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	8V02	TOPICS IN COMPUTER SCIENCE	3.000	3.000	P	0.000
CS	8V07	RESEARCH	3.000	3.000	P	0.000
CS	6378	ADVANCED OPERATING SYSTEMS	3.000	3.000	A-	11.010

			Attempted	Earned	GPA Uts	Points
Term GPA	3.670	Term Totals	9.000	9.000	3.000	11.010
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	3.670	Comb Totals	9.000	9.000	3.000	11.010
Cum GPA	3.606	Cum Totals	63.000	63.000	33.000	119.010
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined Cum GPA	3.606	Comb Totals	63.000	63.000	33.000	119.010

Academic Standing Effective 2010-05-21: Good Standing

2010 Summer

Program: Doctoral
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	8V07	RESEARCH	6.000	6.000	P	0.000

			Attempted	Earned	GPA Uts	Points
Term GPA	0.000	Term Totals	6.000	6.000	0.000	0.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	0.000	Comb Totals	6.000	6.000	0.000	0.000
Cum GPA	3.606	Cum Totals	69.000	69.000	33.000	119.010
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined Cum GPA	3.606	Comb Totals	69.000	69.000	33.000	119.010

2010 Fall

Program: Doctoral
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	8V99	DISSERTATION	6.000	6.000	P	0.000
CS	6375	MACHINE LEARNING	3.000	3.000	A-	11.010

Karen D Garrett

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Official Transcript

Name: Mariappan,Mahesh

			Attempted	Earned	GPA Uts	Points
Term GPA	3.670	Term Totals	9.000	9.000	3.000	11.010
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	3.670	Comb Totals	9.000	9.000	3.000	11.010
Cum GPA	3.612	Cum Totals	78.000	78.000	36.000	130.020
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined Cum GPA	3.612	Comb Totals	78.000	78.000	36.000	130.020

Academic Standing Effective 2011-01-03: Good Standing

2011 Spring

Program: Doctoral
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	8V07	RESEARCH	6.000	6.000	P	0.000
CS	6382	THEORY OF COMPUTATION	3.000	3.000	A	12.000

			Attempted	Earned	GPA Uts	Points
Term GPA	4.000	Term Totals	9.000	9.000	3.000	12.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	4.000	Comb Totals	9.000	9.000	3.000	12.000
Cum GPA	3.642	Cum Totals	87.000	87.000	39.000	142.020
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined Cum GPA	3.642	Comb Totals	87.000	87.000	39.000	142.020

Academic Standing Effective 2011-05-20: Good Standing

2011 Fall

Program: Doctoral
Plan: Computer Science Major
Program: Master
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	8V07	RESEARCH	9.000	9.000	P	0.000

			Attempted	Earned	GPA Uts	Points
Term GPA	0.000	Term Totals	9.000	9.000	0.000	0.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	0.000	Comb Totals	9.000	9.000	0.000	0.000
Cum GPA	3.642	Cum Totals	96.000	96.000	39.000	142.020
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined Cum GPA	3.642	Comb Totals	96.000	96.000	39.000	142.020

Academic Standing Effective 2012-01-05: Good Standing

2012 Spring

Program: Doctoral
Plan: Computer Science Major
Program: Master
Plan: Computer Science Major

Course		Description	Attempted	Earned	Grade	Points
CS	8V99	DISSERTATION	9.000	9.000	P	0.000

			Attempted	Earned	GPA Uts	Points
Term GPA	0.000	Term Totals	9.000	9.000	0.000	0.000
Transfer Term GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined GPA	0.000	Comb Totals	9.000	9.000	0.000	0.000
Cum GPA	3.642	Cum Totals	105.000	105.000	39.000	142.020
Transfer Cum GPA		Transfer Totals	0.000	0.000	0.000	0.000
Combined Cum GPA	3.642	Comb Totals	105.000	105.000	39.000	142.020

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Richardson, TX 75080-3021

Official Transcript

Name: **Mariappan,Mahesh**

Academic Standing Effective 2012-05-23: Good Standing

End of Official Transcript

5 5

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GOVERNMENT OF TAMILNADU

பள்ளிக் கல்வித் துறை
DEPARTMENT OF SCHOOL EDUCATION

மாற்றச் சான்றிதழ்
TRANSFER CERTIFICATE

பள்ளிக் கல்வி இயக்குநரால் அங்கீகரிக்கப்பட்டது
(RECOGNISED BY THE DIRECTOR OF SCHOOL EDUCATION)

வரிசை எண் (Serial No.) : **4949** சேர்க்கை எண் (Admission No.) : 6137

1.	பள்ளியின் பெயர் Name of the School	- S.B.O.A. MATRICULATION & HR. SEC. SCHOOL CHENNAI
2.	கல்வி மாவட்டத்தின் பெயர் Name of the Educational District	-
3.	மாணவர் பெயர் (தனித்தனி எழுத்துகளில்) Name of the Pupil (in Block Letters)	- M. MAHESH BABU
4.	தந்தை அல்லது தாயாரின் பெயர் Name of the Father / ~~Mother~~	- Dr. Mariappan
5.	தேசிய இனம், சமயம் சாதி Nationality, Religion and Caste	- Indian, Hindu, Senguntharl
6.	இனம் (Community)	- ~~OC~~ / BC / ~~MBC / SC / ST~~
7.	பாலினம் (Sex)	- MALE / ~~FEMALE~~
8.	பிறந்த தேதி எண்ணிலும் எழுத்திலும் (மாணவர் சேர்க்கைப் பதிவேட்டில் உள்ளபடி Date of birth as entered in the Admission Register in figures and words	- 04-12-1985 [Fourth December Nineteen Eighty Five]
9.	பள்ளியில் சேர்க்கப்பட்ட (எழுத்தால்) தேதி மற்றும் சேர்க்கப்பட்ட வகுப்பு Date of admission (in words) and Standard in which admitted	- Std. XI (05.07.2001)
10.	மாணவர் பள்ளியை விட்டு நீங்கும் காலத்தில் பயின்று வந்த வகுப்பு (எழுத்தால்) Standard in which the pupil was studying at the time of leaving (in words)	- Std. XII (Twelve)
11.	தேர்ந்தெடுக்கப்பட்ட பிரிவு The Course Offered	- GENERAL (Physics, Chemistry, Maths Comp. Science)
12.	பயிற்சி மொழி (Medium of Study)	- ENGLISH
13.	தேர்ந்தெடுத்த மொழி Language offered under Part - I	- TAMIL / ~~HINDI / FRENCH / SANSKRIT~~

14. மேல்நிலைக் கல்வி விதிகளின்படி மேல் வகுப்பிற்க உயர்வு பெறத் தகுதியுடையவரா என்பது
Whether qualified for promotion to higher standard under Higher Secondary Education rules - Yes

15. மாணவர் பள்ளி வருடத்தில் மருத்துவ ஆய்வுக்குச் சென்றவரா
Whether the pupil has undergone medical inspection, during the academic year - Yes

16. மாணவர் பள்ளியை விட்டு விலகிய தேதி
Date on which the pupil actually left the school - 26-05-2003

17. பெற்றோர் அல்லது பாதுகாவலர், மாணவரின் மாற்றுச் சான்றிதழ் கோரி விண்ணப்பித்த தேதி
Date on which application for Transfer Certificate was made on behalf of the pupil by his parent or guardian - 26-05-2003

18. மாற்றுச் சான்றிதழின் தேதி
Date of issue of the Transfer Certificate - 26-05-2003

19. மாணவரின் ஒழுக்கமும், பண்பும்
The pupil's conduct and character - Good

20. படிப்பு காலம் (Course of study)

கல்வி ஆண்டு Academic Year(s)	படித்த வகுப்பு Standard(s) studied	முதல் மொழி First Language	பயிற்சி மொழி Medium of Instruction
2001 – 2003	XII	Tamil	English

21. தேதி மற்றும் பள்ளி முத்திரை
(Date & Seal) 26-05-2003

S.B.O.A. MATRIC & H.S.S. CHENNAI 600 101.

பள்ளித் தலைமை ஆசிரியரின் கையொப்பம்
Signature of Head of the Institution

M.S. P. [illegible]
P. [illegible]
SBOA MATRICULATION & HR. SEC. SCHOOL
ANNA NAGAR WEST EXTN.,
CHENNAI-600 101.

பெற்றோர் அல்லது பாதுகாவலர் அளிக்கும் உறுதிமொழி
(Declaration of the Parent or Guardian)

மேலே 2 முதல் 7 வரையிலுள்ள இனங்களுக்கெதிரே பதிவு செய்யப்பட்டுள்ள விவரங்கள் சரியானவை என்றும் எதிர்காலத்தில் அவற்றில் மாற்றம் எதுவும் கேட்க மாட்டேன் என்றும் நான் உறுதியளிக்கிறேன்.

I hearby declare that the particulars recorded against items 2 to 7 are correct and that no changes will be demanded by me in future.

M Sumathi.

பெற்றோர் அல்லது காப்பாளர் கையொப்பம்
Signature of the Parent or ~~Guardian~~

MAHESH BABU MARIAPPAN

B.Tech, MS, PhD Candidate Computer Science **(University of Texas, USA)**

Current Position:
Lead Data Scientist at Netmeds Vitalic

Previously:
Senior Data Scientist Manager at GAVS / Ducen IT

Phone: (+91) 8105846094

Email: ai.mahesh.india@gmail.com

Linkedin:

www.linkedin.com/in/mahesh-babu-mariappan

USA ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING DATA SCIENTIST FOR OVER 13 YEARS

USPTO-CERTIFIED INTERNATIONAL INVENTOR OF GRANTED PATENT

I am a **rare combination of an International AI Machine Learning expert, futuristic computer technologist, patent inventor and a former startup business entrepreneur** with passion for innovative new product development. I am a **Computer Science PhD** researcher from **USA** with advanced specialization in Artificial Intelligence (AI), Deep Learning (DL), Machine Learning (**ML**), Natural Language Processing (**NLP**) and Human Computer Interaction (**HCI**).

As a **Former Founder and Managing Director of product startup Companies**, I have taken multiple new products along the following cycle. Ideation – Prototyping – Development - IP Building - GTM Launch - A/B Testing - Customer Acquisition - Viral Growth Hacking - Customer Engagement - New Feature Development - Iteration.

Key Strengths:
1) I have implemented various **Enterprise level AI, Machine Learning, Data Science, Big Data and Analytics** solutions. I am a **natural product person** with proven ability to marry innovative technologies with macro changes to build potentially disruptive products which customers love to use.
2) I have **hands-on technical development skills** on a broad spectrum of ML, AI and **deep learning** technologies.
3) I **take data-driven decisions** and I rely on user engagement data to constantly look for ways to enhance the customer experience with obsession for new feature introduction.
4) I **address audiences** all over the world to drive product adoption.
5) I have been in the **high tech innovation industry for over 13 years with a proven track record of GRANTED patented inventions and research publications**.

What I am interested in?
1) I am interested in an **interesting senior level opportunity** in an organization, where I can leverage my end-to-end skills to the fullest potential.
2) I would be a **great fit for any of the following roles** depending on the organization. Machine Learning and AI Data Scientist, Director/AVP/VP of Analytics and Data Science, Head of Data Science Innovation Lab, Cognitive Head, AI and NLP Research Scientist, Deep Learning Expert, Analytics Head, Chief Technical Architect, Head of New Product Development.

FOREIGN FULL-TIME ACADEMICS

2012 - PhD Candidate Computer Science from University of Texas, **USA (105 credits in Good Standing CGPA: 3.642/4.0)**

2009 – Integrated Masters Degree (MS) in Computer Science from University of Texas, **USA**

2007 - B.Tech in Information Technology from **MIT (CGPA: 8.1/10)**
Overall Best Project Award across all streams

2003 - 12th Std: SBOA Matric and Higher Secondary School **(93%)**
Chemistry – 100%, Physics – 99.5%, Mathematics – 99.5%

2001 - 10th Std: SBOA School and Junior College **(CBSE 90%).**
Science – 93%, Mathematics – 92%

Patents: 10+; Peer Reviewed Paper Publications: 8

WORK EXPERIENCE

Organization: Netmeds Vitalic
Designation: Lead Data Scientist (Delivery Head)
Duration: 2019 - Present
Responsibilities: As both an individual contributor as well the Head of Data Science team, I built time series forecasting models for revenue and demand forecasting, product recommendation engines, and prediction models for turn-around times for our courier management systems, and took the projects to enterprise-level deployment at scale.

Organization: GAVS Technologies and Ducen IT
Designation: Senior Data Scientist (Manager)
Duration: 2018 - 2019
Responsibilities: My mandate is to incorporate Artificial Intelligence (AI) and Deep Learning (ML) into the Company's products. I also spearhead AI innovation initiatives.
As part of my job, I live and breathe AI and Deep Learning on a daily basis. I read research papers, write programs, maintain datasets, build deep learning models, train them, test them, prepare performance reports, refine models, deploy PoCs, and iterate.

Organization: MVPL Stumper (Sports)
Designation: Vice-President of New Product Development (AI/IoT)

Duration: 2016 - 2017
Responsibilities: MVPL is a 20+ years old manufacturing organization owned by Mr.Nagarajan. It has multiple brands. Stumper brand for sports. TT brand for food and spices manufacturing. I was serving as the VP NPD for Stumper. I invented the Stumper Smart Bat, and I built an entire product line by writing bluetooth low-energy IoT android applications which read IMU motion sensor data (accelerometer, gyroscope, magnetometer) from cricket bats and transmitted them to users' smart phones. A User is applauded with his favorite song using a **machine learning based recommendation engine**, whenever he hits top speed among his friends' circle. I generated and **filed IP/Patents for MVPL** Stumper at the US and Indian Patent Offices for a spectrum of innovative connected-sports products.
Achievements: As a key person, I initiated the process of transforming an old-school, brick-and-mortar manufacturing Company into a new age wearable sports technology brand.

Organization: PINCOTV INTERNET PVT LTD
https://www.youtube.com/watch?v=UJY9np9g2Z0
Designation: Founder CEO / Chief Innovation Officer (AI/ML)
Duration: 2013 - 2016
Responsibilities: PinCodeTV can be thought of as the Amazon Seller Services for offline retailers. My key responsibilities as the CEO was to ideate, prototype, develop, and take to market PinCodeTV hyperlocal marketplace for sellers. To further acquire early users, conduct A/B tests, build new features to engage customers in order to drive transactions. To directly manage and lead a dynamic startup team and key stakeholders of the firm (approx. 30 people). To further employ **Artificial Intelligence and Machine Learning** for building tools for retail seller services.
Achievements: I used agile project development and project management methodologies to successfully build, test, deliver, deploy and maintain over a hundred iterations. Within a few months of launch, I growth hacked and took the platform viral around March 2015. I then successfully solved key challenges relating to online-offline dichotomy between online user engagement and in-store walk-in transactions by constantly studying customers and merchants using the platform in real-time, and subsequently conceived, designed and deployed PinCodeTV's unique offline transactions model and patented token-exchange algorithms. This resulted in triple-digit growth in gross transaction volume for the Company.
Conceived, designed and developed multiple tools with high impact potential. Conducted campus recruitment drives at various Universities. Served as an Invited Speaker, Thought Leader and Chief Guest of Honor at various avenues for research and entrepreneurship.

Organization: ERIC JOHNSON RESEARCH LABORATORY, RICHARDSON, TEXAS (USA)
Designation: PhD Researcher
Duration: 2007 - 2013
Responsibilities: To conduct original research in the domains of Artificial Intelligence (AI), Machine Learning (ML), Natural Language Processing (NLP),

Human Computer Interaction (HCI).
Achievements: Inventor Recognition Awards. Vice-President of Technology for Entrepreneurship Organization. Peer-reviewed paper publications.

Organization: GOVERNMENT OF INDIA
TIFAC (TECHNOLOGY INFORMATION FORECASTING ASSESSMENT COUNCIL, DST)
www.tifac.org.in
Designation: AI and Machine Learning Research Intern
Duration: 2006 - 2007
Responsibilities:
(a) To research, design and develop algorithms for machine learning driven context-aware and ambient-intelligent smart homes using IoT sensors, specifically RFID, for TIFAC-CORE on pervasive computing. To further explore applications of IoT for pervasive computing applications.
(b) To research and build a hypermedia machine learning application for education for the Simputer platform.
Achievements: Successfully designed and implemented a location prediction algorithm using Markovian techniques, modeled users' behavior using Bayesian Belief Networks, and used fuzzy logic for realizing time awareness in a smart home project. Selection and publication in IEEE International Conference. Overall Best Project Award. Oral paper presentation in USA at IEEE PDCS 2006.
Successfully designed and implemented collaborative learning solutions using Simputer platform and tools. Selection and publication in International Conference at IEEE ICIA 2006.

STARTUP ENTREPRENEURSHIP EXPERIENCE

PINCOTV INTERNET PVT LTD
CIN: U72200KA2014PTC076504
Designation: Founder CEO / Chief Innovation Officer

PinCodeTV was like Amazon Seller Services for offline retailers. It was a hyperlocal commerce transactions marketplace which organically, automatically builds a social network, on the fly, which connects local shoppers with neighborhood retail stores through innovative mechanisms.
https://www.youtube.com/watch?v=UJY9np9g2Z0

UNIQUE SKILLSET IN THE MARKET

Artificial Intelligence AI, Deep Learning, Machine Learning, Data Science, Tensor Flow, Python, Scikit learn, Pandas, Numpy, Neural Networks, Data Analytics, Regression, Classification, Clustering, Natural Language Processing NLP, Data Mining, CNN, RNN, LSTM, NLTK, Word2Vec, Internet of Things IoT, Big Data, Hadoop, Cloud Services, AWS, Android Development, Human Computer Interaction HCI, Computer Vision, Product Management, Program Management, Product strategy, Product road map, User-stories, Use-cases, Wireframing, Requirements Analysis, Customer presentations, Data Structures, Algorithms,

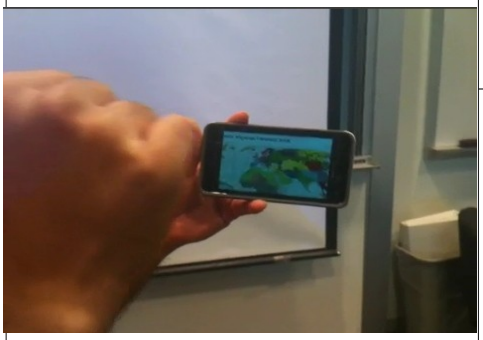
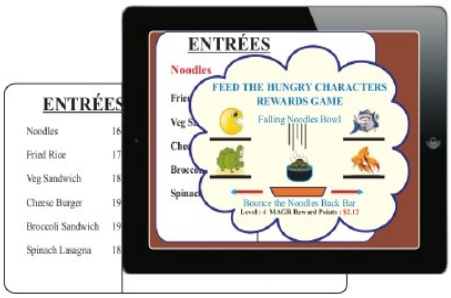
Unix, Shell Scripting, C, C++, Java, Linux, SQL, Patents, Research, Technical Writing, Academia, Public Speaking.

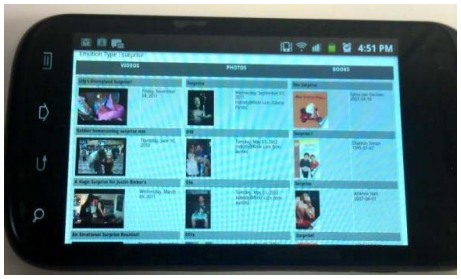
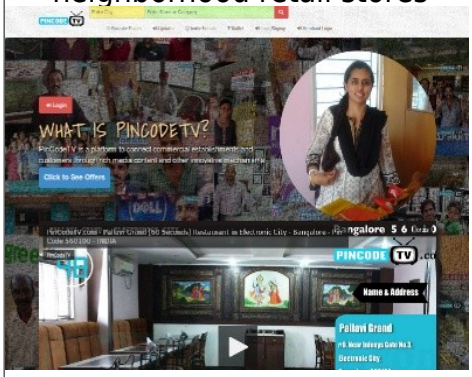
PRIOR INDUSTRY DOMAIN KNOWLEDGE

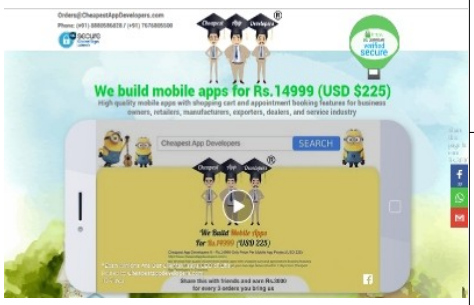
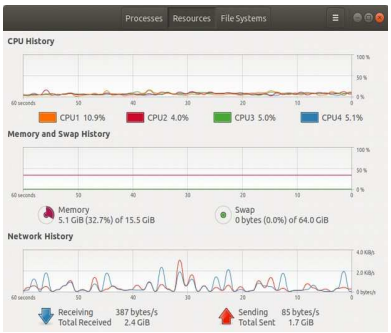
Ecommerce, Health Care, Fintech, Payment Wallets, Education and Learning, Consumer Electronics, Automotive, Cloud Services, IT Infrastructure, Retail, Marketing and Sales, Smart Homes, Telecommunications and Mobile, Connected Sports.

12+ Years in High Tech Innovations Since 2006

Year	Illustration	Invention Areas, Description and Validation
2006	**Smart Homes Using IoT and RFID** 	**AREAS** AI, Machine Learning, Ubiquitous Computing, IoT, Wearable Technologies, Ambient Intelligence. **VALIDATION** **1)** "On the short-term feasibility of using RFID in realizing ambient-intelligence in Indian homes", **In Proc. 18th Intl' Conf** on Parallel and Distributed Computing Systems (PDCS-2006), pg 376-380, Dallas, TX, USA **2) Best Project** Award
2007	**Pervasive Learning Environments** 	**AREAS** AI, Machine Learning, Pervasive Learning, eLearning. **VALIDATION** "Collaborative eLearning For Remote Education: An Approach For Realizing Pervasive Learning Environments", **In Proc. 2nd Intl' Conf** on Information and Automation (ICIA-2006), pg 274-278, Colombo, SriLanka
2008	**ADHD Detection in Children Using NLP**	**AREAS** Natural Language Processing, Machine Learning, Computational Linguistics, Diagnosis.

		**VALIDATION** I developed a system that applies natural language processing on oral and written responses to diagnose children with ADHD. This system was **evaluated for trials**.
2009	**2ndVision–Advanced Driver Assistance Systems** 	**AREAS** Automobile, ADAS, AI, Computer Vision, Machine Learning, Pattern Recognition, Navigation Systems. This invention is about analyzing in real-time, camera feeds captured while a vehicle is in motion, with the purpose of detecting objects of interest and alerting the driver. **VALIDATION** **UTD USA Inventor Recognition Award**
2010	**OnCue – Touchless User Interface Control System** 	**AREAS** AI, Computer Vision, Machine Learning, Gesture Recognition, Pattern Recognition, User Interface, Control Systems. This invention allows users to control their computing devices (mobile, standalone, handheld, etc) using just the bare hands without using a motion controller, remote control or a touchscreen **VALIDATION** **UTD USA Inventor Recognition Award**
2011	**MAGR – Menucard Gaming For Restaurants** 	**AREAS** Intelligent Systems, Machine Learning, Interactive Gaming, Infotainment Systems, Computer Vision, Pattern Recognition, Restaurants This invention is about interactive gaming and infotainment on restaurant menu cards. **VALIDATION** **India Patent 730/CHE/2013** **US Patent GRANT US13/771,229** **https://patents.google.com/patent/US20130222367A1**

2012	**FaceFetch Content Recommendation System** 	**AREAS** AI, Machine Learning, Emotion Recognition, Content Recommendation, Computer Vision, Pattern Recognition, Cloud Services. **VALIDATION** "FaceFetch: A User Emotion Driven Multimedia Content Recommendation System Based on Facial Expression Recognition," **In Proc 2012 IEEE Intl Sym** on Multimedia, ISM 2012.
2013	**PinCodeTV –** Hyperlocal eCommerce marketplace that connects local shoppers with neighborhood retail stores 	**AREAS** Hyperlocal transactions platform, eCommerce, Internet, coupons, mobile recharge, payment wallet. **VALIDATION** **70000 phone verified users** **Virality** ~10000 signups in a single day https://www.youtube.com/watch?v=UJY9np9g2Z0
2014	 **Patent: 4535/CHE/2014**	**AREAS** AI, Economics, Analytics, Cash Monitoring, Finance, Fintech, Token Exchange Processes, Local Market **VALIDATION** **Patent: 4535/CHE/2014** "System, Methods And Apparatus To Monitor Local Market Physical Consumer Engagement And Cash-Based Transaction Activity Using Information Communication Technology Hardware And Token Exchange Processes"
2015	**Patent: 2379/CHE/2015**	**AREAS** Commerce, Accessibility, Offline Operating System

	 PATENT OFFICE INTELLECTUAL PROPERTY BUILDING G.S.T. Road, Guindy, Chennai-600032 GOVERNMENT OF INDIA CHALLAN : TR-5 DOCKET NO:14893 Date/Time : 11/05/2015 To, MAHESH BABU MARIAPPAN 8/1P, SPAN CENTER, DIAMOND STORM OFFICE, SONY BUILDING, NEAR HOSA ROAD JUNCTION, HOSUR MAIN ROAD, BANGALORE - 560100 Agent Number: Sr. No. / CBR No. / Reference Number (Application Type) / Application Number / Title/Remarks / Amount Paid 1 / 9167 / ORDINARY APPLICATION / 2379/CHE/2015 / SHOPERATING SYSTEM AN OFFLINE OPERATING SYSTEM FOR END-TO-END LOCAL MARKET SHOPPING EXPERIENCE WITHO / 1760 2 / E-107/25559/2015-CHE / 2379/CHE/2015 / Correspondence / 0 3 / E-2/1406/2015-CHE / 2379/CHE/2015 / Form2 / 0 Total : 1760 Received a sum of Rs. 1760 (Rupees One Thousand Seven Hundred & Sixty only) through Payment Mode: Draft / Bank Name: IDBI Bank / Cheque/Draft Number: 001002 / Cheque/Draft Date: 07/05/2015 / Amount in Rs: 1760 Note: This is electronically generated receipt hence no signature required.	**VALIDATION** **Patent: 2379/CHE/2015** "SHOPerating System: An Offline Operating System For End-To-End Local Market Shopping Experience Without Requiring End-Users To Have Computer and Internet Data Access"
2016	 We build mobile apps for Rs.14999 (USD $225) Cheapest App Developers SEARCH	**AREAS** AI, Mobile Applications, Data driven. Revolutionizing mobile applications development using AI and data-driven approaches. **Vision**: Affordable mobile apps for every business on the planet.
2017 **Stumper Plus Smart Bat**	 IOT	**AREAS** Internet of Things (IoT), Connected Sports, Android, AI. **Revolutionizing sports.** At MVPL Stumper Sports, as an individual contributor I built an entire product line by writing bluetooth IoT android applications which read IMU motion sensor data (accelerometer, gyroscope, magnetometer) from cricket bats and transmitted them to users' smart phones. A User is applauded with his favorite song using a machine learning recommendation engine whenever he hits top speed among his friends' circle. **VALIDATION** **Patent: US15/795,250** "Systems and Methods for Cricket/Baseball Game Scoring and Umpiring"
2018	 Processes Resources File Systems CPU History CPU1 10.9% CPU2 4.0% CPU3 5.0% CPU4 5.1% Memory and Swap History Memory 5.1 GiB (32.7%) of 15.5 GiB Swap 0 bytes (0.0%) of 64.0 GiB Network History Receiving 387 bytes/s Total Received 2.4 GiB Sending 85 bytes/s Total Sent 1.7 GiB **System Resource Utilization Forecasting**	**AREAS** Tensorflow, AI, Deep Learning, RNNs, LSTMs I built advanced deep learning models to forecast system resource utilization for large MNC clients. My area of worked revolved around simultaneous multiple time series forecasting using Tensorflow.

2019	**Product Recommendation** **Courier Turn-around Time Prediction** 	**AREAS** ML, AI, Facebook Prophet, Tensorflow Time Series, Scikit Learn As both an individual contributor as well the Head of Data Science team, I built time series forecasting models for revenue and demand forecasting, product recommendation engines, and prediction models for turn-around times for our courier management systems.

PATENTS

[1] **STATUS: GRANTED.** Mahesh Babu Mariappan, "Overlaid virtual playground and overlaid virtual information delivery platform for restaurants, catering businesses and other businesses using menu cards, pizza boxes, salt and pepper shakers, and other objects," **US 9928651 B2**, February 2012.
[2] Mahesh Babu Mariappan, "Food Game Toys," (***CIP***) **US15/412017 and IN 201741032570**, January 2016.
[3] Mahesh Babu Mariappan, Nagarajan Soodammani, "Systems and Methods for Cricket/Baseball Game Scoring and Umpiring," **US15/795250**, October 2016.
[4] Mahesh Babu Mariappan, "System, Methods And Apparatus To Monitor Local Market Physical Consumer Engagement And Cash-Based Transaction Activity Using Information Communication Technology Hardware And Token Exchange Processes," **IN 4535/CHE/2014**, September 2014.
[5] Mahesh Babu Mariappan, "SHOPerating System: An Offline Operating System For End-To-End Local Market Shopping Experience Without Requiring End-Users To Have Computer and Internet Data Access," **IN 2379/CHE/2015**, May 2015.

PEER-REVIEWED CONFERENCE AND JOURNAL PUBLICATIONS

[1] M. B. Mariappan, M. H. Suk, B. Prabhakaran, "FaceFetch: A User Emotion Driven Multimedia Content Recommendation System Based on Facial Expression Recognition," Proceedings of 2012 IEEE International Symposium on Multimedia, ISM 2012.
[2] M. B. Mariappan, M. H. Suk, B. Prabhakaran, "Facial Expression Recognition Using Dual-Layer Hierarchical SVM Ensemble Classification," Proceedings of 2012 IEEE International Symposium on Multimedia, ISM 2012.
[3] M. B. Mariappan, X. Guo, B. Prabhakaran, "PicoLife: A Computer-Vision Based Gesture Recognition and 3D Gaming System for Android Mobile Devices," Proceedings of 2011 IEEE International Symposium on Multimedia, ISM 2011.
[4] M. B. Mariappan, M. S. A. Sailappan, M. Chidambaram, R. V. Uthariaraj, "On the Short-Term Feasibility of Using RFIDs in Realizing Ambient Intelligence in Indian Homes," In Proceedings of the IEEE International Conference on Parallel and

Distributed Computing and Systems, PDCS 2006.
[5] M. S. A. Sailappan, M. B. Mariappan, M. Chidambaram, R. V. Uthariaraj, R. Shriram, “Improving Prediction Accuracy in Context-Sensitive Smart Homes Using K-Markov Model,” International Journal of Soft Computing, vol. 2, no. 2, April 2007, pp. 273-278.
[6] M. Chidambaram, M. S. A. Sailappan, M. B. Mariappan, “Collaborative Learning Environments,” Proceedings of the IEEE International Conference on Information and Automation, ICIA 2006.
[7] R. V. Uthariaraj, M. B. Mariappan, "Graduate Courses in Embedded and Real-Time Systems", IEEE Pervasive Computing vol. 6, no. 2, Nov. 2006, pp. 101-104.
[8] M. Chidambaram, M. S. A. Sailappan, M. B. Mariappan, R. V. Uthariaraj, R. Shriram, “Resolving Users' Behavior Modeling Ambiguities in Fuzzy-Timed Smart Homes Using Only RFIDs,” IJCNS International Journal of Computer Science and Network Security, vol. 6, no. 11, Nov. 2006, pp. 179-184.

REFERENCES

NAME	OCCUPATION	NATURE & DURATION OF ACQUAINTANCE
Dr. Rhymend Uthariaraj	**Head (ANNA UNIV)** rhymend@annauniv.edu (+91) 9444150081	Supervisor (Known since 2003)
Dr. Shriram	**Scientist (TIFAC, Govt. of India)** shrionsong@yahoo.com (+91) 9445006756	Supervisor (Known since 2006)
Baskar Babu	**Admin (MVPL Stumper Sports)** baskarbabu.r@maheshvalue.com (+91) 9597212444	Admin (Known since 2016)
Dr. Andras Farrago	**Scientist (UTDALLAS, USA)** farago@utdallas.edu (+001) 972-883-6885	TA Supervisor (Known since 2008)

Declaration: The above information is true to the best of my knowledge


आयकर विभाग
INCOME TAX DEPARTMENT
भारत सरकार
GOVT. OF INDIA
MAHESH BABU MARIAPPAN
MURUGESAN MARIAPPAN
04/12/1985
Permanent Account Number
CEAPM4235F
Signature

ELECTION COMMISSION OF INDIA

IDENTITY CARD

இந்திய தேர்தல் ஆணையம்

வாக்காளர் அடையாள அட்டை

AZZ2063485

Elector's Name : Maheshbabu

வாக்காளர் பெயர் : மகேஷ்பாபு

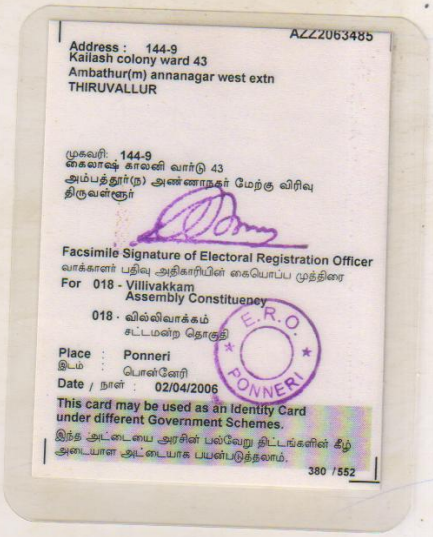
Father's Name : Mariyappan

தகப்பனார் பெயர் மாரியப்பன்

Sex / பாலினம் : Male / ஆண்

Age as on 1.1.2006

1.1.2006 அன்று வயது : 21



AZZ2063485

Address : 144-9
Kailash colony ward 43
Ambathur(m) annanagar west extn
THIRUVALLUR

முகவரி: 144-9
கைலாஷ் காலனி வார்டு 43
அம்பத்தூர்(ரு) அண்ணாநகர் மேற்கு விரிவு
திருவள்ளூர்

Facsimile Signature of Electoral Registration Officer
வாக்காளர் பதிவு அதிகாரியின் கையொப்ப முத்திரை
For 018 - Villivakkam
Assembly Constituency
018 - வில்லிவாக்கம்
சட்டமன்ற தொகுதி

E.R.O. PONNERI

Place : Ponneri
இடம் : பொன்னேரி
Date / நாள் : 02/04/2006

This card may be used as an Identity Card
under different Government Schemes.
இந்த அட்டையை அரசின் பல்வேறு திட்டங்களின் கீழ்
அடையாள அட்டையாக பயன்படுத்தலாம்.

380 7552

GCP—26/6—7,29,175 Cps.-11-7-2001[p2-1]

R.Dis. 22167 /2002 dt. 6.02.

BC

சான்றிதழ் எண் :
Certificate No. :

4637510

மாவட்டக் குறியீடு எண் : 01
District Code :

வட்டக் குறியீடு எண் : 02
Taluk Code :

கிராமக் குறியீடு எண் : 006
Village Code :

சாதிச் சான்றிதழ்
COMMUNITY CERTIFICATE

சென்னை மாவட்டம் பு.பெ வட்டம்
பெரம்பூர் கிராமம்/நகரம், திரு./திருமதி/செல்வி/
செல்வன் M. முகேஷ்பாபு தகப்பனார்/கணவர்
பெயர் ஸ்ரீனிவாஸ்பாபு
இந்து - செங்கிதர்

வகுப்பைச் சார்ந்தவர், அரசு ஆணை நிலை என் 28, பிற்பட்ட மற்றும் மிகவும் பிற்பட்ட பிரிவின் நலத் துறை, நாள் 19.7.1994 வரிசை என்..... படி, பிற்பட்ட பிரிவினைச் சார்ந்தவர் எனச் சான்றளிக்கப்படுகிறது.

This is to certify that.....Son / Daughter of Thiru.....of.....Village / Town.....Taluk.....District of the State of Tamil Nadu belongs to .....Community, which is recognised as a Backward Class as per Government Order (Ms.) No. 28, Backward Classes and Most Backward Classes Welfare, dated 19th July 1994. *vide* Serial No.....

2. திரு./திருமதி/செல்வன்/செல்வி. M. முகேஷ்பாபு என்பவரும் அவருடைய குடும்பத்தினரும் தமிழ்நாட்டில் சென்னை மாவட்டத்தில் பு.பெ வட்டத்தில் பெரம்பூர் கிராமத்தில்/நகரத்தில் வசித்து வருகிறார்கள் எனச் சான்றளிக்கப்படுகிறது.

2. It is certified that Thiru/Tmt/Selvan/Selvi..... and his/her family ordinarily resides(s) at the Village/Town .....Taluk.....District of Tamil Nadu.

கையொப்பம் :
Signature :
நாள் :
Date :
எழுத்துகளில் :
(Capital Letters) :
பதவி :
Designation :

Head Quarters Dy. Tahsildar,
Purasawalkam-Perambur Taluk,
Chennai-600 012

13/1

முத்திரை.
Seal.

VITALIC
Health Private Limited

ANNEXURE-I

Certified that Mahesh Babu Mariappan is employed as Delivery head (Designation) in the Data Science (Department/Division Name) of Vitalic Health Private Limited (Institution/Industry Name).

We have no objection in forwarding his/her application for the Ph.D. Research Programme.

FOR PART TIME:

The candidate will be permitted to undertake part time study in the University/College and will be allowed to be present for discussions with the supervisor, attending course works, conduct of experiments and participations in seminars and related presentations. Further the required facilities at our organization will also be provided to the candidate for doing research.

VITALIC HEALTH PRIVATE LIMITED CHENNAI 600014

Date: 16/12/20 Signature of the Head of Organization with office seal

Vitalic Health Private Limited

Registered Office: No. 250, Lloyds Road, Royapettah, Chennai 600014, Tamil Nadu, India (P) 44-49280000
Corporate Office: EA Chambers (Express Avenue), 5th Floor, No.49 & 50 L, Whites Road, Royapettah, Chennai - 600 014
Tamilnadu, India (P) 91-44-30254141, 30254142 (F) 91-44-30254158 (W) www.vitalicindia.com
CIN: U74999TN2015PTC102106