Aditya Srichandan

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ABOUT

Innovative and industrious undergraduate, currently working in Maxim Integrated Inc., Gandhinagar, IN, (part of Analog Devices Inc., San Jose, USA). Having an excellent exposure in research and business applications of AI, IoT, & Robotics, Embedded Software, Supply Chain Analytics. Looking forward to pursuing master's program in ABC course at XYZ University, and to contribute to scientific research and applications in the field of AI.

RESEARCH INTEREST

Deep Learning, Reinforcement Learning, Robotics (Perception), Internet of Things (Telematics), Embedded & Real time software systems.

EDUCATION

Vellore Institute of Technology, Vellore | 632014 TN, IN **July 2017 – June 2021**
Bachelor of Technology in Electronics & Communication Engineering (ECE)
CGPA: 8.54/10.00
Relevant Coursework: Data Structures and Algorithm, Computer Organization & Architecture, Operating Systems, Analog Electronics, VLSI, Digital Signal Processing, Network & Communications, Micro-controller and applications, Artificial Intelligence, Robotics & Automation, Internet of Things (IoT).

Shree J.C School of Science, Vadodara | 390021 GJ, IN **April 2016 – May 2017**
Senior Secondary (12th Grade)
Cumulative Percentage: 85.5%

Gujarat Public of School, Vadodara | 390021 GJ, IN
Matriculation (10th Grade) **April 2014 – May 2015**
CGPA: 8.80/10.00

WORK EXPERIENCE

1. Supply Chain Data Analyst, Maxim Integrated (Part of Analog Devices Inc., San Jose, USA) **August 2021 – Present**
Gandhinagar, GJ, IN

a) Currently working on organization's wafer fab defect classification using deep learning and computer vision techniques
b) Improved semiconductor wafer Fab/testing/assembly planning optimization using Machine Learning by 12% overall.

2. Supply Chain Data Analyst Intern, Maxim Integrated (Part of Analog Devices Inc., San Jose, USA) **January 2021 – July 2021**
Gandhinagar, GJ, IN

a) Worked with supply chain and operations team in San Jose HQ; Demand forecasting for Maxim Integrated products using machine learning forecast.
b) Improved Maxim's Key Performance Indicator (KPI) in on-time delivery of products using time series deep learning, provide root cause analysis for not on-time deliveries.
c) Overall ~19% improvement in delivery metrics KPIs using Machine Learning projections.

3. Ureka's Global Trainee - Internship Program. **July 2020 – August 2020**
Remote, Dubai

a) Part of Sloan Technologies FZCO, UAE (Data Science division of Ureka Group, UK)
b) Project title: Data Munging, Modeling & Storytelling on Heterogeneous Datasets
c) Hands on experience with web scrapping Stack Overflow using REST API for knowledge graph representation. Developed a web application for word category search using NLP, Gensim; and knowledge graph implementation using network Python library & published blog on Medium **(demo)**

4. Embedded System Software Intern, L&T Technology Services (LTTS) **May 2019 – June 2019**
Bengaluru, KA, IN

a) Worked on customized microcontroller boards such as beaglebone, TIVA-C, STM32 with focus on IoT and communication with cloud services.
b) Developed a part of data streaming pipeline configuration using AWS IoT Analytics in the LTTS ongoing project on connected aquatic telematics for boats.

PUBLICATIONS & RESEARCH WORK

1. **An Improved Q-learning Approach with Kalman Filter for Self-balancing Robot Using OpenAI.** Journal of Control Automation and Electrical System (2021). https://doi.org/10.1007/s40313-021-00786-x **(demo)** **August 2021**
2. **Smart Green House Gas Footprint Display with Integrated Smart Power Monitoring and IoT Actuation**, International Journal of Recent Technology and Engineering, Vol. 8, Issue 5, Pg. 1243- 1247 **January 2020**

PROJECTS

1. BUILDORYX | Vadodara, GJ **(demo)** **June 2021 – Present**

a) My initiative to provide free online courses and hands on project sessions on latest technologies such as AI, Robotics, Virtual Reality applications, IoT, Embedded Systems.
b) The E-Learning platform Buildoryx is built using MERN and NextJS frameworks.
c) Ongoing project where I intend to teach and reach people using project and research focused courses with latest research paper implementations.

2. Semiconductor Wafer Fab and Assembly virtual Tour | Gandhinagar, GJ **(demo)** **May 2021 – August 2021**

a) Developed a VR platform for manufacturing wafer fab and assembly; User has ability to roam around the facility and educate themselves with semiconductor manufacturing and assembly processes.
b) Useful for organization seeking for remote industrial visits and training new hires during pandemic/COVID19 times.
c) Built on React360 and React-VR framework stack. 3D modelling of machines using Blender.

3. Robot Can Imagine: Object Detection using deep Text-to-Image IL-GAN | Vellore, TN **(demo)** **December 2020 – June 2021**

a) Research project undertaken as a part of the final year bachelor thesis, under the supervision of Dr. Prakasam P & Dr. Noor V. Mohammed
b) Service robot implementation and simulation on ROS, pick and place application with voice command and object detection to assist users.
c) Proposed a method for object detection using text-to-image GANs, the robot can imagine images based on speech command by users and fetch it.
d) The technical research paper submitted to Journal of Computer Vision, Springer Nature; and is currently under review.

***All the project demos uploaded on GitHub**

ACCOMPLISHMENTS & EXTRA-CURRICULAR

1). 1st prize in ACCESS DENIED Hackathon, IETE Technical Chapter | VIT University, Vellore **(demo)** **March 2019**

- **Panpharmacon - Disaster Management System:** Disaster management by live victim and rescue tracking web app, NLP on call and text, chat-bot, and collaborative robot simulation with UGV and Drones.

2). 3rd prize in MLH (Major League Hacking) Local Hack Day | VIT University, Vellore **(demo)** **December 2018**

- **Storage Monitoring using IoT for food supply chain logistics:** Data streaming web application using AWS Kinesis firehose, Realtime analytics with predictive machine learning to monitor a food quality while en-route and suggest shortest path for trucks to maintain food quality.

3). Event Manager for Technical VIT-TUC (2018) | VIT University, Vellore **February 2018**

4). Technical Core-Committee member of IET on Campus VIT | VIT University, Vellore **December 2017 - June 2018**

CERTIFICATIONS

1). Sensor Fusion Nanodegree | Udacity, Online Course **August 2020**
Theory and practical aspects of Lidar, Radar, Kalman filter and Computer vision, Implemented 4 projects as part of the nanodegree.

2). Data Science Nanodegree | Udacity, Online Course **August 2020**
Project based course with hands-on Web scrapping, Machine Learning, and deployment to production.

3). PadhAI Deep Learning | IIT-Madras, Online Course **December 2019**
Theoretical and capstone project-based course, with focus on latest Deep Learning research paper implementations.

TECHNICAL SKILLS

1. **Programming Languages**: Problem solving and competitive coding languages: C/C++, Java, Python, JavaScript,
2. **Frameworks and Libraries:** Proficient in working with libraries such as: Pytorch, TensorFlow, Hugging Face, Robot Operating System (ROS), Open AI.
3. **Full Stack:** Experience in working with Mongoose, ExpressJS, React, NodeJS (MERN), MongoDB, SQL Oracle/Server/Lite, nextJS, Java Spring boot, Docker.
4. **Embedded Hardware:** Practical Knowledge in Arduino, Raspberry Pi, Beagle Bone, NVIDIA Jetson Nano, Embedded C, Mirco-Python, Assembly Language x86, AVR/STM32, Verilog HDL.
5. **Software and OS:** ARM Embed-OS, Linux/UNIX, CUDA, Windows, Git-Hub, VS-Code, Intelli-J, STM32-CubeMX, Carla Simulator for Self-driving car simulations**.**

LANGUAGES

- **Kannada :** Native Speaker
- **English :** Fluent
- **Hindi :** Fluent
- **Gujarati :** Intermediate
- **German :** Elementary (A1 Level)

REFERRENCES

- **Dr. Prakasam P,** HOD, SENSE, VIT University – Vellore **prakasam.p@vit.ac.in**
- **Dr. Malaya Kumar Hota,** Professor, SENSE, VIT University – Vellore **malayakumar.h@vit.ac.in**
- **Dr. K. Anil Kumar**, Associate Professor, SCOPE, VIT University - Vellore **anilkumar.k@vit.ac.in**
- **Mr. Jatin Sangani,** Senior Analyst, Maxim Integrated, (part of Analog Devices Inc., San Jose, USA) **Jatin.Sangani@analog.com**