

# Amit P Sathyaseelan

github.com/Amitsathya linkedin.com/in/amit-sathya/ amitsathyaseelan@gmail.com  
amitsathya.github.io/portfolio/work (813) 454-6481

## EDUCATION

### University Of Michigan

*Masters in Artificial Intelligence with Specialization in Computer Vision*

**Courses:** Computational Learning, Artificial Intelligence, Natural Language Processing

May 2024

CGPA: 3.9/4.0

### Vellore Institute Of Technology

*Integrated M.Tech in Software Engineering*

**Courses:** Foundations for Data Analytics, Data Warehousing and Data Mining, Soft Computing

Jun 2022

CGPA: 9.02/10.0

## SKILLS

**Programming Languages:** Python, C++, Java, Typescript, SQL, R, HTML/CSS

**Databases/ Frameworks:** MongoDB, PostgreSQL, OracleSQL, git, NumPy, Angular, React, Node.js, Docker

**Machine Learning:** TensorFlow, PyTorch, scikit-learn, Keras, numpy, pandas, Tableau, ML/AI Algorithms/Models

**Certification:** Deep Learning Specialization, Azure Fundamentals (AZ-900)

## PROJECTS & RESEARCH

### ML for Regression, CNN with Polynomial Curve-Fitting, Cross-Validation & Optimization Techniques

- Enhanced predictions by **15%** with **polynomial curve-fitting ML regression**, utilizing Docker for seamless deployment and Kubernetes for orchestration.
- Optimized CNN architectures for **10% accuracy gain** on MNIST data through varied configurations and parameter tuning, leveraging Spark for distributed computing during model training.
- Technology used: Python, Matlab, Anaconda, Jupyter/Google Colab, Docker, Kubernetes, Spark

### Blind-Aid (Voice-Based Image Recognition System)

- Created a patented mobile app using voice-based image recognition for visually impaired, enhancing daily functionality.
- Trained a **95% accurate Convolutional Neural Network on COCO dataset**, coupled with advanced Dialogflow for natural voice interactions, elevating user accessibility.
- Python, Tensorflow, OpenCV, Dialogflow, AWS S3, Instance, Ionic, Node.JS, Google TTS/STT, Docker,

### IoT-Based COVID De-Escalation System Using BLE

- Created IoT-based COVID de-escalation system using BLE, accurately predicting local cases via real-time Bluetooth tag data collection.
- Utilized **Raspberry Pi and ESP-8266** for data analysis within designated geofence, leading to research paper publication.
- Integrated Kafka for real-time data streaming and Flink for stream processing, ensuring efficient handling of Bluetooth tag data.
- Technology used: Python, Angular, Firebase, HTML, CSS, Triangulation, BLE Tags, Azure Lambda, Kafka, Flink

## EXPERIENCE

### Teaching Assistantship | University of Michigan, Dearborn

Jan 2022 - May 2023

- Guided **60** students in CIS 436, enhancing around **240** projects in quality and learning outcomes.
- Remedied bugs in **15** projects, ensuring timely assignment completion, and introduced precise grading rubric for consistent evaluation.

### Front End Developer Intern | Wipro - Kalajitha IT Solution Llp

Jul 2020 - Jul 2022

- Created and deployed web apps improving financial processes for a multinational corporation.
- Established an approval system, cutting unauthorized spending by **40%**, and integrated reporting feature for data transparency.
- Technology used: Angular, Typescript, Figma, Postman, HTML, Sass, C#, Asp.Net

### Research & Development Intern | Mindteck India Ltd

Jun 2018 - Jul 2018

- Executed BLE asset tracking testing plan, achieving **95% accuracy** and optimizing triangulation algorithm with CTO to save \$5000 in hardware costs.
- Enhanced system accuracy by 10% through RSSI research and calibration techniques for reliable enclosed asset tracking.
- Technology used: Python, Raspberry Pi 3, Triangulation, BLE Tags