

## EDUCATION

The Pennsylvania State University | University Park, PA

May 2024

Master of Science in Computer Science

Current GPA: 3.73/4.0

Fr. Conceicao Rodrigues College of Engineer | Mumbai, India

May 2021

Bachelor of Engineering in Computer Engineering

CGPA: 9.58/10.0

## SKILLS

**Technical Languages:** Python, C, JavaScript, HTML/CSS, ReactJ & LATEX**Databases:** MySQL, PostgreSQL, MongoDB & Neo4J**Frameworks:** TensorFlow, PyTorch, XGBoost, NLTK, RASA, Flask, FastAPI, PyTest, Elasticsearch, Git & Docker**Practical Experience:** AWS, REST, IoT, Deep Learning, Natural Language Processing & Computer Vision

## EXPERIENCE

AI/ML Summer Associate | JP Morgan &amp; Chase Co., Wilmington, DE

June 2023 – Aug 2023

- Implemented a robust PyTest-based testing framework to comprehensively validate the Transaction Risk Modeling Team's entire Feature Engineering codebase.
- Designed a real-time recalibration system for the Transaction Risk ML model using the Online ML XGBoost algorithm, achieving a significant TDR and AUC gain of approx. 100-150 basis points.
- Developed a TabNet-based Deep Neural Network for the Transaction Risk model as a challenger with around 90% accuracy.

AI Product Manager | Plexflo, Mumbai, India

Oct 2021 – July 2022

- Pioneered the development of EVidence, an advanced P2P-SaaS software leveraging real-time smart meter data and industrial IoT devices, powered by plug-and-play AI algorithms with a latency of less than 90 milliseconds.
- Delivered a non-invasive load monitoring (NILM) AI open-source library called Plexflo based on a Time-series Segmentation model with an F1 of around 90%.

AI Research Intern | Sync Energy Inc., Mumbai, India

July 2020 – Sept 2021

- Programmed AWS Lambda-Python-based Geo-Coordinates Power Outage API and in-house RASA chatbot to enhance power outage statistics extraction and user interaction with GridLAB-D Simulation Software.
- Utilized Mask R-CNN to identify and estimate the locations of utility poles with cross-arms from Google Street View images with an accuracy of up to 83%, streamlining infrastructure assessment.
- Created Neo4J-based knowledge graphs from research papers on wildfires and their effects on grid infrastructure.

SDE Intern | Mumbai International Airport Ltd., Mumbai, India

June 2019 – July 2019

- Integrated the Airside Safety Management Application [AngularJS and Microsoft SQL Server framework system] with the Incident Monitoring System [Microsoft SQL Server database and .net system].
- Programmed Python-Shell script to establish a communication link between the ATS and the Flight Feed Server.

## PROJECTS

Datacertus

June 2021 – March 2022

- Created a full-service, no-code AWS-based Data Science platform designed to meet every B2B need.
- Trained AI-based models and workflows, by using IntellifaceTM drag-and-drop interfaces to expedite the model training process.

Leveraging Conversational AI for Secure Healthcare Assistance

March 2020 – May 2021

- Designed end-to-end Docker-NodeJS-MongoDB-based Software for patients' electronic healthcare records.
- Integrated a RASA-based therapy Transformer chatbot, leveraging the BigchainDB blockchain database for the analysis of emotion, storing and tracking medical records, monitoring health, and analyzing behavior.

## PUBLICATIONS

- Vedant S., Jason D., Mayank S., Mahendra M., Dhananjay K. (2021) Leveraging Deep Learning and IoT for Monitoring COVID-19 Safety Guidelines Within College Campus. In: Garg D., Wong K., Sarangapani J., Gupta S.K. (eds) Advanced Computing. IACC 2020. Communications in Computer and Information Science, vol 1367. Springer, Singapore. [https://doi.org/10.1007/978-981-16-0401-0\\_3](https://doi.org/10.1007/978-981-16-0401-0_3)
- S. Kaur, V. Sahai, A. Jaiswal, and S. Chanda, "Knowledge Mining for Defining Systemic Engineering Practices," 2020 4th International Conference on Electronics, Communication, and Aerospace Technology (ICECA), Coimbatore, 2020, pp. 1346-1352, DOI: 10.1109/ICECA49313.2020.9297380.

## INVOLVEMENTS

- Teaching Assistant at The Pennsylvania State University for courses CMPSC 131, 132 & 431W. Aug 22 - Present
- Member of Team Mavericks UAV CRCE Aug 2018 – July 2019
- Winner at Smart India Hackathon March 2019
- Fourth Runner-Up at India Singapore Hackathon September 2019
- Third Runner-Up at India AI Hackathon 2019 September 2019