VEDANT SAHAI

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EDUCATION

The Pennsylvania State University | *University Park, USA* — *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

Languages: Python, C, JavaScript, HTML/CSS & 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 & Chase Co., USA*** — *Jun 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, *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., India*** — *July 2020 – Sept 2021*
- 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., India*** — *June 2019 – July 2019*
- Integration of the Airside Safety Management Application [AngularJS and Microsoft SQL Server framework system] with the Incident Monitoring System [Microsoft SQL Server database and .net system].
- Python-Shell script to establish a communication link between the ATS and the Flight Feed Server.

PROJECTS

Datacertus — *June 2021 – March 2022*
- A full-service, no-code AWS-based Data Science platform designed to meet every B2B needs.
- Developed 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*
- An end-to-end Docker-NodeJS-MongoDB-based Software for patients' electronic healthcare records.
- RASA-based therapy 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
- 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.

CO-CURRICULUM

- **Teaching/Learning Assistant** at *The Pennsylvania State University* for courses CMPSC 131, 132, and 431W.
- *Conducted workshops and developed drones as a* **Member** of **Team Mavericks UAV CRCE** from 2017-2018
- **Winner** at *Smart India Hackathon 2019*
- **Fourth Runner-Up** at *India Singapore Hackathon 2019*
- **Third Runner-Up** at *India AI Hackathon 2019*