Ansh Nirav Mehta

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Education

Stony Brook University — **Stony Brook, NY** — **Aug 2022 – Present**
- **M.S. in Computer Science.** **Coursework**: ML, Computer Networks, Visualization, Prob. & Stat., Data Science

K. J. Somaiya College of Engineering — **Mumbai, India** — **Aug 2018 – May 2022**
- **Bachelor of Technology in Information Technology.** **GPA**: 9.04 / 10

Experience

AI/ML Intern — **Entrigna** — **June – August 2023**
- Achieved an accuracy of 72.35% while developing a ResNet based the Discriminator of a **Generative Adversarial Network** model used for **AWS SageMaker** on Medical images (Diabetes Retinopathy).
- Engineered Deep Learning systems, including their frontend and database, and deploy them with the help of **Streamlit, Bootstrap, AWS, Pytorch**, and the company's environment.

Backend Developer Intern — **Pred Healthcare Solutions** — **April – May 2022**
- Identified important KPIs and developed a dashboard for monitoring product usage of the healthcare information management system. This functionality led to reducing the **system failure reports from users side by 79%**.
- Employed **AngularJS** for frontend, **Django** for Backend, and **MySQL** as the database to revamp the PDF generation module of the application which was vital for doctors during medical report generation and Prescription generation. Additionally, actively took part in the **ideation of the Hospital inventory module**.

Python Developer Intern — **Intertrust Group** — **June – August 2021**
- Improved an existing ML model that was used for Financial Reconciliation that was built using **Python and MongoDB (Studio 3T)**. Helped in reducing the latency resulting in improved performance. Cleaned the model by reducing the **lines of code from 3400 to 2960**.
- Wrote unit and service level tests using Selenium for the services for the application leading to a decrease of **14 bug reports** related to the UI.

Web Developer Intern — **Software Development Cell of KJSCE** — **January – March 2020**
- **Built an interactive website** for personality trait identification, based on the **OCEAN model**, using a question and answer system, where the tech stack used was **Firebase, PHP, and SQL**.
- **Collected data from a group of 1000 students** of the Engineering Department using the system and performed analysis on the same, where the personality traits of Openness and Extroversion were common among the Engineering students.

Technical Projects

Master's Research Project
- Led a **Computer Vision** based project in collaboration with the **Harvard Medical School** and **Prof. Ayush Kumar**, developing a mobile app that aids visually impaired people. Created a dataset of about **3000 images for 14 different brand** logos.
- Trained and compared the performance of Tensorflow-based models including **RetinaNet, MobileNet, and YoLov5** on the dataset. Discovered that YoLov5 outperformed the other models with an **Average Precision** (mAP@0.5) of **77.8%**, while the Retinanet model performed at **62.3%** and MobileNet at **48.6%**.

Healthino
- Initiated a team of 4 while developing Healthino, a web app that provides health-related assistance using an AI Chatbot, an ML-based disease prediction portal. Achieved an **accuracy of 98.6**% for the **Disease prediction system** by building an ANN model.
- Worked with **Deep learning and NLP algorithms** like **LSTMs, Bidirectional LSTMs, and Sentiment Analysis** to achieve an accuracy of **83.4%** in the chat-bot module. Adopted an agile methodology to supervise and report the progress of the whole project to the guide. Successfully authored and published **two research papers** in the renowned, **IEEE and Springer** journals, highlighting the findings and conclusions derived from the project.

Visualisation of Airbnb listings for all states of USA
- Designed and implemented an **interactive Dashboard** for visualizing and analyzing the house listings on AirBnb using **D3.js, Flask, JS, and HTML**. It provides the user with filtering options like house price, location, type of lease, house types, top hosts in the region, etc. to streamline the house search process in a city.

Game-Dise
- Incorporating the AI principles of **Game Playing, Mini-Max Algorithm, and Back Tracking**, Game-Dise, a mobile app, provides users with options to play Sudoku and Tic-Tac-Toe at **different competitive levels**. Developed on **Flutter, Dart, and Firebase**.

Languages and Technologies

- **Languages and Databases** - Python, C, R, SQL (MySQL, PostgreSQL), NoSQL (MongoDB), HTML, JavaScript, CSS, PHP, Bootstrap
- **Frameworks and Tools** - Django, Flask, ReactJS, AngularJS, D3.js, Flutter, JavaScript, JIRA, Git, LaTeX, Heroku
- **Data Science Skills** - Tableau, Power BI, Excel, SageMaker, Hypothesis Testing, ML, Computer Vision, Deep Learning, NLP, Azure ML Studio, AWS, Rapid-Miner, PyTorch, and TensorFlow.