RAJ MEHTA

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EDUCATION

Master of Science in Information Systems, Northeastern University *Expected Apr 2024*
Coursework: End-to-end Application Development, Big Data Intelligence, Machine Learning, Advanced Data Science
Bachelor of Science in Information Technology, *St. Xavier's College* *Jun 2018 - Mar 2022*
Computer Science, *University of Notre Dame* *Feb 2021 - Dec 2021*

TECHNICAL SKILLS

Programming	Java, Python, SQL, Bash, R, Dart, JavaScript, HTML-CSS
Frameworks	FastAPI, Streamlit, Numpy, Pandas, Scikit-Learn
Cloud and DevOps	AWS (S3 and EC2), Apache Airflow, Github CI/CD, Docker
Database	SQL Server, Postgres, Oracle, MySQL, MongoDB, Snowflake
Competencies	AI, ML, Computer Vision, Deep Learning, Software development, Cloud Programming

PROFESSIONAL EXPERIENCE

Data Analyst, Eventide Communications, Little Ferry, NJ *Aug 2023 - Dec 2023*

- *Generated detailed reports templates and configurable report blocks using **NexlogDX** with **Python** as the backend programming language, which helps PSAPs to effectively measure and manage their resources, staff, dispatches and call volumes.*
- *Collaborated with cross-functional teams to extract, transform, and analyze large datasets using **Python, JS(AMCharts5), and HTML-CSS** to develop reports and live-dashboards for live 911 call data to effectively communicate insights to clients.*
- *Developed **Bash** scripts to meticulously export, securely backup, and seamlessly migrate critical **Postgres** data from client systems to Eventide recorders, enhancing operational efficiency and elevating customer satisfaction.*

Quality Assurance and Automation Engineer, DE Shaw & Co, Hyderabad, India *Jan 2022 - Sep 2022*

- *Translated new website and API enhancements into **Cypress.io**-based test scenarios, collaborating with project stakeholders to identify regression areas, resulting in a 10% increase in overall system readiness and improved deployment efficiency.*
- *Proposed and successfully implemented an automated bug monitoring system leveraging **Selenium WebDriver**, enabling issue detection in the development cycle, resulting in a remarkable 20% reduction in defects reported post-QA reviews.*
- *Successfully orchestrated defect logging and categorization through **Python**, adeptly crafted and executed automation scripts for job monitoring using **Cypress.io**, resulting in a noteworthy 5% increase in defect pinpointing efficiency.*

AI/ML Engineer, Dronology - Funded by NASA & NSF, South Bend, IN *May 2021 - Dec 2021*

- *Enhanced communication reliability with drones and devices through the implementation of **MQTT** architecture for subscription and publication, resulting in a remarkable reduction of response time from 10ms to an impressive 2ms.*
- *Conducted rigorous safety testing in **Java** utilizing **mutation testing** on UAV flight plans, validating the effectiveness of the safety algorithm. Achieved an impressive throughput of 1500 test case checks, ensuring robust and reliable UAV operations.*
- *Contributed research by publishing papers in esteemed venues such as the International Journal on Software Engineering **(JSS, October 2022)** and the International Conference on Communications **(ICCPS, December 2021)**, showcasing innovative findings and advancing the collective knowledge in the UAVs **safety-algorithm** domain.*

PROJECTS

Basic Dutch Auction (Smart Contract - Crypto) *May 2023*

- *Designed and developed a decentralized Dutch Auction application utilizing **Solidity** smart contracts, ensuring secure transaction management on a **blockchain** platform, providing users with a seamless and trustless auction experience.*
- *Delivered a comprehensive end-to-end application, handling UI development, rigorous testing of **ETH** transactions from a faucet, and leveraging **IPFS** to enable seamless access for others through an ipfs:// url. View project*

Meeting Intelligence (Cloud Application, APIs, CI/CD, Apache Airflow, OpenAI) *May 2023*

- *Developed an application that leverages the **Whisper API** to convert audio files into text transcripts, subsequently utilizing **GPT API** to pose standard questions streamlining information retrieval and interaction with audio data through **NLP** techniques.*
- *Employed **Streamlit** to develop an enhanced user experience and interaction. Additionally, implemented custom question functionality, empowering users to inquire about the text content. View project*

Stock Predictor (REST API & Machine Learning) *Mar 2022*

- *Built a user-friendly application using the **FinBert model** to predict stock sentiment and analyze stock positions, integrating financial news from **News API** and **Seeking-Alpha API** for real-time insights.*
- *The Stock Prediction module uses **Google BERT Summarizer, ProcusAI financial model, and LSTM model**, to accurately forecast future stock prices, achieving an impressive prediction accuracy of 63.3%. View Project*

Financex (end-to-end Java Application) *Nov 2022*

- *Created an end-to-end application, orchestrating the integration **JAVA-ANT** application as the front-end and **SQLite** as the database, while seamlessly fetching real-time data from **NYC, NSE, and BSE APIs**. Skillfully implemented login and portfolio sections, along with broker and brokerage functionalities. View Project*

PUBLICATION

Configuring mission-specific behavior in a product line of collaborating Small Unmanned Aerial Systems, Journal of Systems and Software 2022, Md Nafee Al Islam, Muhammed Tawfiq Chowdhury, Ankit Agrawal, **Raj Mehta,** Daria Kudriavtseva, Jane Cleland-Huang -ISSN 0164-1212, doi.org/10.1016/j.jss.2022.111543 *Oct 2022*