RAJ MEHTA

Boston, MA ◇ (857) 364-9394 ◇ Portfolio: rajmehta.info
mehta.raj1@northeastern.edu ◇ LinkedIn: raj-kamlesh-mehta ◇ Github: Raj-Mehta2012

EDUCATION

Master of Science in Information Systems, Northeastern University — Expected May 2024
Coursework: Application Development, Big Data Intelligence, Advanced Data Science, Fintech, AI-ML
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, Spark-ML, Jupyter Notebook, Kafka, Hadoop
Cloud and DevOps	AWS (S3, EC2, Glue, Sagemaker, Lamda), Apache Airflow, Git CI/CD, Docker, AzureML, Databricks
Database	SQL Server, Postgres, Oracle, MySQL, MongoDB, Snowflake
Competencies	AI, ML, Computer Vision, Deep Learning, Software development, Cloud Programming

PROFESSIONAL EXPERIENCE

Data and Python Engineer, Eventide Communications, Little Ferry, NJ — Aug 2023 - Dec 2023

- Engineered report templates and configurable blocks using **NexlogDX**, leveraging **Python** for backend development, enabling PSAPs to efficiently manage over 10 key metrics including resources, dispatches, call volumes, etc. enhancing operational insights.
- Collaborated with cross-functional teams to analyze large datasets using **Python, JS (AMCharts5)**, and **HTML-CSS**, creating 20+ reports and dashboards for 911 calls streamlining client decision-making.
- Developed **Bash** scripts for secure **Postgres** data handling to Eventide recorders, managing around 10 million entries and ensuring data integrity, thereby boosting operational efficiency and 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.
- 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

Meeting Intelligence (Cloud Application, APIs, CI/CD pipeline, Apache Airflow, OpenAI, Snowflake) — 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. This solution processed over 200 hours of audio content, enhancing meeting efficiency by 40%. 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. This tool analyzed over 50 stock positions, providing users with a 56.3% prediction accuracy rate.
- Leveraged the **Google BERT Summarizer, ProcusAI financial model, and LSTM model** with the stock prediction model, to accurately forecast future stock prices, achieving an impressive prediction accuracy of 63.3%. 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