

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 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, Oracle, MySQL, MongoDB, Snowflake
Competencies	AI, ML, Computer Vision, Deep Learning, Software development, Cloud Programming

PROFESSIONAL EXPERIENCE

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.

Software Developer, **Jhoola**, Mumbai, India Aug 2020 - Dec 2020

- Designed and implemented a feature-rich **Flutter** application facilitating schedule creation, management, and performance tracking for end users, streamlining processes and reducing paperwork by an impressive 30%.
- Pioneered a cutting-edge **Java** algorithm, leveraging **REST API** to build and update resumes with multiple API calls, significantly reducing the average wait time from 10ms to an exceptional 4ms, ensuring swift and efficient resume generation and updates.
- Performed as Scrum Manager, successfully led a team of 7 skilled software developers, orchestrating daily meetings to ensure effective project progress, seamless communication, and enhanced collaboration, resulting in optimized development workflows.

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**, **ProcuAI 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