Jainav A Mutha

jm9869@g.rit.edu | (585)-363-8215 | LinkedIn: http://linkedin.com/in/jainavmutha| Github

EDUCATION

Rochester Institute of Technology   **Rochester, NY**

M.S. in Data Science - GPA: 3.87/4.00   *Expected Graduation, Dec 2024*

- **Related Coursework:** Data Structures & Algorithms, Objects & Design, Computer Organization & Programming, Machine Learning, Artificial Intelligence, Object-Oriented Programming, Statistics & Applications

Vellore Institute of Technology   **Chennai, India**

B.Tech. in Electronics and Communications Engineering - GPA: 8.95/10.00

EXPERIENCE

Zegatile Info Solutions   **Hyderabad, India**

Data Engineer Intern   *May 2022 – Aug 2022*

- Worked on an inhouse built software named "VAIND" which is an End-to-End Hospital Software.
- Analyzed and collected patient data for a 500-bed facility.
- Reduced data redundancy by 40%, resulting in improved data integrity and consistency.
- Perform data mining and analysis on $20 million in net patient revenue annually.
- Engineered expenditure reports using Tableau, improving report accessibility resulting in more data driven solutions.

Decospaa Cloud technologies   **Pune, India**

Software Engineering Intern   *May 2021 – Dec 2021*

- Redesigned and developed 6 highly interactive web applications using React, resulting in a remarkable 60% increase in user traffic and engagement on the platform.
- Integrated chatbots with web applications to help solve the consumer queries 50% more efficiently.
- Designed and implemented several Rest APIs using Postman and used them on frontend to handle CRUD operations.
- Learned about agile methodology and project management tools such as Jira and GitHub.

PROJECTS

DeFake - A DeepFake Detector (Capstone project)   *Sep 2023 – Current*

- Developed a novel multi-task disentanglement framework addressing deep fake detection challenges, achieving a 20% reduction in overfitting to irrelevant features.
- Introduced a conditional decoder, enhancing forgery irrelevant and forgery features disentanglement, resulting in a 15% improvement in model generalization.
- Utilized a large dataset of around 42 million images on a university research computer. (around 2.3 TB)
- Conducted a comprehensive review of existing models, identifying limitations and gaps in current methodologies.
- Implemented an efficient PyTorch data loader, reducing data traversal time by 30% and enhancing file loading capabilities.

Student Performance DashBoard   *Jan 2023 – Apr 2023*

- Pioneered a model to predict the Academic performance of a student using modular coding practices.
- Improved data quality by implementing rigorous cleaning techniques, resulting in a 20% reduction in errors.
- Implemented and compared different Machine Learning algorithms with hyperparameter tuning to find the best model and achieve an accuracy of 89%.
- Created a Web App using Flask to predict the performance based on the user input.
- Deployed the Web Application in AWS Elastic Beanstalk using Continuous Delivery pipelines (CI/CD).

AutSpot - An Autism Helper   *Dec 2022 – Jan 2023*

- Developed a user ready application that helps to determine if an autistic individual is having an episode, and how the surrounding people can help the individual.
- Implemented a facial recognition algorithm with an efficiency of 83% using Open CV in python.
- Designed a UI using FIGMA for a mobile and web application, also implemented HTML and CSS
- Incorporated some calming techniques such as music and images by using self-generating AI tools such as DallE.

PUBLICATIONS

- Sentiment Analysis on Streaming Data using parallel computing. (Link)
- Pen Testing: Attack a vulnerable Metasploitable Machine. (Link)
- A Cloud-Based Prediction and Self-Diagnosis System for PCOS Using Machine Learning Model. (Link)
- Heart Disease Diagnosis using Machine Learning. (Link)

SKILLS

Programming: Java, Python, JavaScript, HTML/CSS, SQL, Node.js, React.js, MATLAB, C++, C, R, XML

Tools: IntelliJ, PyCharm, Eclipse, AWS, Jupyter Notebooks, Git, Bootstrap, Spring Boot, Agile, Docker, REST APIs, Jump, Figma, Github, Git, Tableau, Power BI, Django, Flask, snowflake, Microsoft SharePoint, PowerApps, Power Automate Platform.