

RIYA RAJ

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EDUCATION

Columbia University

Master of Science in Computer Science, Specialization in Machine Learning

New York, USA

Aug 2024 - Dec 2025

- **Courses:** Analysis of Algorithms-I, Introduction to Databases, Natural Language Processing, Projects in CS
- **Teaching Assistantship:** TA for Computing in Context (Fall 2024)
- **Research Assistantship:** Speech Processing Lab (Fall 2024)

Vellore Institute of Technology

Bachelor of Technology in Computer Science and Engineering, CGPA: 9.12/10

Vellore, IN

Jul 2019 - Apr 2023

- **Courses:** Data Structures and Algorithms, Operating Systems, Object Oriented Programming (OOPs), Probability and Statistics, Database Management, Software Engineering, Artificial Intelligence, Computer Networking

EXPERIENCE

JPMorgan Chase & Co.

Software Developer

Hyderabad, IN

Jun 2023 - Jun 2024

- Engineered an ensemble learning model with LSTM and Prophet on AWS SageMaker, achieving 85% accuracy in predicting hardware failures and bringing down unexpected downtime by 75% through advanced time series analysis.
- Created a React front-end and Django back-end for real-time visualization and analysis of predictive analytics data.
- Established partnerships with 8 cross-functional teams within organization for seamless incorporation.
- Co-invented a hardware prediction tool with innovative software design, contributing to a patent as co-author.

Software Engineering Intern

Feb 2023 - May 2023

- Implemented a health monitoring system for 1000+ applications with Python, Grafana, Splunk, Kubernetes, and AWS.
- Constructed interactive React dashboards showcasing intricate application health data, empowering stakeholders to make data-driven decisions with better user experience and minimizing troubleshooting time by 35%.

Summer Analyst

Jun 2022 - Jul 2022

- Created a code commit count tracking platform employing React and Flask, integrating version control system APIs for data retrieval. Rolled out globally for JPMC developers.
- Incorporated Chart.js for interactive visualization of monthly commit counts, reducing manual tracking time by 70% and fostering increased developer engagement.

LTRC @ IIIT, Hyderabad

Research Intern

Hyderabad, IN

Aug 2023 - Jun 2024

- Led a research project with [Prof. Radhika Mamidi](#) at [LTRC](#) to classify text styles as masculine or feminine.
- Extracted and analyzed over 100,000 data points leveraging Python Libraries, NLP and Regression Analysis techniques.
- Explored and optimized language models (N-grams, Hidden Markov Models), ML models (SVM, Naive Bayes, XGBoost), and DL models (RNNs, CNNs, BERT, GPT) to simulate text classification.

Indian School of Business

Data Science Intern

Hyderabad, IN

Sep 2022 - Feb 2023

- Collaborated with [Prof. Ashwini Chhatre](#) on [India Data Portal](#), funded by the Bill and Melinda Gates Foundation, overseeing extraction and management of over 700,000 data points with Selenium.
- Built a self-sustained, customizable web application in Python to visualize insights from over 2,000 datasets sourced from Indian Government Departments.

Indian Oil Corp. Ltd.

ML Intern

Noida, IN

May 2021 - Jul 2021

- Took initiative to conceptualize a Computer Vision based fuel payment solution with OpenCV and YOLO, reducing manual intervention by 70%.
- Integrated payment processing system, enhancing UI for fuel expense settlements; increased user satisfaction by 25%.

PROJECTS

- **Image Outpainting:** Innovated outpainting techniques powered by Deep Convolutional GANs; extended images into unknown areas with integration, achieving a 90% user test accuracy and elevating visual appeal.
- **Resume Parser:** An efficient resume parsing tool utilizing Python and SpaCy NER; implemented cosine similarity ranking, enhancing candidate selection and decreasing initial screening time by 45%.
- **Covid Visualization:** Designed an advanced COVID-19 data visualization dashboard using Prophet, refining forecast precision by 20% and offering in-depth national and global statistics for improved decision-making.
- **Farmery:** Architected Farmery, an interactive platform developed with HTML, CSS, JavaScript and MERN Stack to streamline farm-to-consumer transactions, improving UI/UX and magnifying user engagement by 40%.

SKILLS SUMMARY

- **Languages:** Python, Java, C++, C, JavaScript, Dart, R, SQL, HTML, CSS, PHP, TypeScript, Bash
- **Frameworks:** React, Angular, Node.js, Django, Flask, Express, Spring, TensorFlow, Keras, Pandas, Numpy
- **Tools:** MySQL, MongoDB, Cassandra, git, JIRA, Bitbucket, VS Code, Xcode, Postman, Docker, Jenkins
- **Platforms:** Linux, MacOS, Windows, Web, Android, iOS, AWS, GCP, Firebase, Azure