Amritesh Kuraria

FDUCATION —

State University of New York at Buffalo, Buffalo, NY

Aug 2024 - Dec 2025

Master of Science, Computer Science, GPA: 3.6/4

Rajiv Gandhi Proudyogiki Vishwavidyalaya (RGPV), Bhopal, India

Aug 2017 - Jul 2021

Bachelor of Engineering, Computer Science, GPA: 7.7/10

PROFESSIONAL EXPERIENCE -

Tata Consultancy Services (TCS)

Oct 2021 – Aug 2024

System Engineer

- Engineered a scalable ETL pipeline using Apache Airflow, SQL, and Power BI, automating data processing and reducing report generation time by 70%.
- Automated workflows with **Python**, cutting manual effort by **30%** and enhancing efficiency.
- Integrated AWS Lambda for serverless computing, optimizing costs by 30%.
- Optimized system performance, reducing downtime by 15%.
- Performed 12+ comprehensive vulnerability assessment of client facing application, each resolving over 600 vulnerabilities.
- Conducted UAT for a client-facing application, including creating and overseeing 50 test cases.
- Built and deployed **RESTful APIs** with Flask and FastAPI, improving response times by 30%.
- Monitored and maintained **server performance**, ensuring 99.9% uptime for applications.

PROJECTS -

Interactive Web Application for Hypothesis Testing and Machine learning Analysis

- Created a real-time analytical platform using Python Streamlit, efficiently processing over 2.5 million entries from the NeurIPS dataset and enabling instant data visualization.
- Designed an interactive interface supporting **real-time model execution** (SVM, ANOVA, logistic regression) and CRUD operations, reducing analysis time by 35% and increasing user engagement through buttontriggered actions.

Earning Prediction Model

- Deployed a Random Forest Classifier to predict income levels, achieving 89.6% accuracy.
- Optimized performance by data processing, feature engineering and hyperparameter tuning.
- Conducted exploratory data analysis and visualized Findings using Matplotlib to enhance decision-making.

Expense Tracker Web App

- Engineered a full-stack expense tracking app with user authentication, enabling users to manage income/expenses and view category-wise summaries.
- Crafted UI using **Next.js and TailwindCSS**; integrated charts for visualizing monthly spending patterns.
- Built RESTful APIs with **Node.js and Express**, and utilized **MongoDB** for efficient data storage and retrieval.

Cloud-Based BI Dashboard for SP 500 Stock Analysis using AWS & Power BI

- Designed and implemented a cloud-based data pipeline using AWS S3, Glue, and Athena to analyze 500+ U.S. company stock records.
- · Automated data cataloging with AWS Glue Crawlers and enabled SQL-based guerying in Athena, reducing manual processing time by 80%.
- Delivered a BI solution that supports near real-time insights and interactive reporting for financial data analysis.

TECHNICAL SKILLS -

- Technologies: AWS, Docker, Kubernetes, CI/CD, MongoDB, Express, Apache Kafka, Git, Jira, Machine Learning.
- Programming Language: Python, Java, JavaScript, C++, Typescript, HTML, CSS
- Frameworks: Flask, Django, Nodejs, Spring boot, Reactjs, Numpy, Pandas.
- Core: Object-Oriented Design Solution, Best Practices, Technical Documentation, SDLC, DSA.

CERTIFICATION —

AWS Cloud Practitioner Essentials - Amazon Web Services