

Saranya Tadikonda

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<https://saranya222.github.io/portfolio/>

EDUCATION

University of California, Berkeley SEPT 2024 - PRESENT
Masters in Data Science and Machine Learning

University of Connecticut SEPT 2016 - MAY 2020
Bachelors in Computer Science

EXPERIENCE

Capital One — Senior Data Engineer AUG 2022 - PRESENT

- Implemented an anomaly detection framework using Machine Learning techniques to automatically identify data integrity issues
- Replaced third-party software with in-house data pipelines using Python, PySpark, Pandas, Snowflake, AWS Glue, and more, saving \$2 million annually
- Optimized data storage and data retrieval, improving performance from 12 hours to 5 hours
- Led migration to a new pipeline orchestration tool, independently designing and integrating it with existing infrastructure. Established best practices while leading the team in execution
- Led end-to-end development of the liquidity, FDIC, and interest rate risk data pipelines
- Mentored two entry-level engineers by providing guidance, conducting code reviews, assigning work based on interest and experience, and offering support in their professional development outside of their technical scope

Capital One — Senior Software Engineer FEB 2022 - AUG 2022

- Leveraged Python Lambda functions to perform data arrival checks in data lakes, ensuring timely notifications are sent to users via SNS and showcasing the results in QuickSight
- Designed and implemented the database layer using DynamoDB, optimizing data storage and retrieval processes for enhanced efficiency and scalability
- Spearheaded the development from a proof of concept to production by actively participating in architecture meetings and showcasing an understanding of the project life cycle

Capital One, Software Engineer AUG 2020 - FEB 2022

- Played a pivotal role in the Marketing Navigator full-stack application by developing the core backend service in Java/Spring Boot and the frontend in Angular
- Engineered the email fulfillment microservice using Java which delivers over 1 million marketing emails daily to customers
- Developed a feedback system handling a Kafka stream of around 40 million messages daily, delivering key insights on customer interactions, including open rates and click rates

SKILLS

Machine Learning

TensorFlow, Keras, PyTorch, Scikit-learn, Pandas, NumPy, SciPy, Matplotlib, Seaborn, Regression, Classification, Clustering

Data Engineering

Python, PySpark, Spark, Pandas, NumPy, Hadoop, Scala, SQL, Snowflake, Redshift, Databricks, Presto, Kafka, QuickSight, AWS Glue

Cloud & DevOps

AWS (S3, EC2, ECS, ALB, SNS, Glue, CloudWatch), Docker, Jenkins, Build Scripts, Git

Software Development

Java, Spring Boot, Angular, TypeScript, React, Node.js, Jenkins, Jira, Build scripts, GIT, SQL, DynamoDB, PostgreSQL, MySQL, Kafka

PROJECTS

Predicting Salary in Latin America

Built predictive models like Linear Regression, FFNN, Random Forest, KNN to estimate salaries across 11 countries, achieving $R^2 = 0.80$ and surfacing GDP/labor force as key drivers.

Statistical Insights on Article Shares

Analyzed 40k+ news articles to identify factors that affect article shares. Applied linear regression with advanced diagnostics to assess the impact of publication timing, media count, sentiment, and category on article shares.