SAGAR PATEL

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EDUCATION

New York UniversityNew York, NYMaster of Science, Computer EngineeringMay 2022PES UniversityBengaluru, KABachelor of Technology, Electrical & Electronics EngineeringMay 2019

EXPERIENCE

Amazon Web Services, Inc.

Seattle, WA

Machine Learning Engineer

July 2022– April 2025

- Developed predictive models using machine learning algorithms (e.g., random forests) to forecast customer behavior with 92% accuracy.
- Contributed to the launch of Amazon Bedrock by fine-tuning foundation models for text generation tasks like summarization and classification using Hugging Face Transformers.
- Built recommendation systems leveraging collaborative filtering techniques on large datasets processed via Apache Spark on AWS EMR clusters.
- Automated ETL pipelines using AWS Glue and SQL to streamline data preparation workflows for analytics teams.

Pixar Animation Studios

Los Angeles, CA

Machine Learning Engineer Intern

January 2022- May 2022

- Conducted statistical analysis on animation dailies to identify bottlenecks in rendering workflows; findings led to an 8% improvement in efficiency.
- Implemented computer vision models using OpenCV to automate motion tracking in animation sequences.

New York University
Data Science Bootcamp Instructor

New York, NY May 2021– May 2022

- Led a boot camp for over 300 students, developing tailored course plans on machine learning concepts such as supervised/unsupervised learning, deep learning frameworks (TensorFlow, PvTorch), and statistical modeling.
- Mentored group projects on topics like computer vision, NLP, and reinforcement learning to foster academic growth in data science applications.

Unacademy

Bengaluru, KA

Data Scientist

June 2019- August 2020

- Designed A/B tests to optimize content delivery strategies; insights led to a 10% increase in user engagement metrics.
- Created Tableau dashboards to visualize team productivity trends and content inflow metrics.

PROJECTS

NFL Big Data Bowl 2025 (Formation Success Analysis) (Python)

2024

• Conducted football formation analysis using Python libraries (pandas, matplotlib) to identify optimal strategies and provide actionable insights.

Ling-spam Email Spam Filter (Python; SQL)

2022

 Developed a Naive Bayes-based spam detection model achieving 98% accuracy on benchmark datasets; analyzed robustness against adversarial attacks.

Customer Churn Prediction (Python; SQL)

2022

 Built a logistic regression model that identified at-risk customers with 89% precision; deployed the model as an API for real-time predictions.

HACKATHONS

2nd Place – AWS Hackathon NAW 2022

Online, 2022

 Built a music recommendation system using Apache Spark's ALS algorithm, achieving a MAP score of 0.05 on the Million Song Dataset.

3rd Place - NYU 2020 COVIDHack Challenge

New York, NY, 2020

Developed a mobile app leveraging Google Maps data to optimize NYC transit systems during COVID-19.

SKILLS

Experienced: Python (pandas, NumPy), R; Supervised/Unsupervised Learning (Random Forests, SVMs), Deep Learning (TensorFlow/PyTorch); Apache Spark, Hadoop DFS; SQL (PostgreSQL), NoSQL (MongoDB); Tableau, matplotlib, seaborn; AWS SageMaker (including Bedrock APIs), Glue

Familiar: Java, R; AWS Transcribe, Textract, VPC; Apache Spark, Hive, Hadoop DFS; Speech Recognition, Adversarial NLP; MongoDB, Linux Shell Scripting, CUDA Programming; Statistical Modeling (A/B Testing), Feature Engineering