Ajay Aryan

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Summary

Experienced Software Engineer with around three years in machine learning and web development. Demonstrated expertise in deploying scalable ML models and designing web applications. Proficient in data analysis and visualization, delivering measurable outcomes that improve operational efficiency.

Education

Florida State University, FL, US GPA: 3.75/4
Master's Degree - Data Science (Mathematics) August 2023 – May 2025

- Developed predictive models with 92% accuracy using neural networks for trend forecasting.
- Applied advanced statistical methods to analyze large datasets, reducing processing time by 15%.
- Conducted research on regression techniques to improve prediction reliability.

Pune University, Pune, IN GPA: 8.02/10
Bachelor's Degree - (E&TC) August 2016 – May 2020

- Designed an IoT-based monitoring system, reducing energy consumption by 20%.
- Gained foundational knowledge in machine learning and embedded systems.

Work Experience

Team Lead Intern January 2025 – April 2025
Aqua Insights, Florida, US

- Developed scalable sentiment analysis pipelines using Python and Pandas, improving data insights and workflow optimization.
- Implemented web scraping techniques with Selenium and BeautifulSoup to collect and preprocess sentiment data from multiple sources.
- Led agile sprint-based development, utilizing Jira for efficient task management and GitHub for version control.
- Applied advanced data visualization techniques with Matplotlib and Seaborn to enhance reporting clarity.
- Optimized data analysis workflows using SQL and NumPy, reducing processing time for large datasets.

Software Engineer-Associate II February 2021 – July 2023
Capgemini Technology Services, Noida, IN

- Deployed ML models with TensorFlow for NLP tasks, improving text classification accuracy by 30%.
- Enhanced system performance by optimizing data preprocessing workflows, reducing runtime by 20%.
- Implemented ETL processes and leveraged large language models to categorize user interactions and perform sentiment analysis, automating 50% of tasks and boosting organizational engagement by 10%.
- Led the development of a React-based dashboard, increasing user engagement and streamlining deployment processes using Docker and Kubernetes, improving resource utilization by 20%.
- Engineered scalable web applications with MongoDB, React, and FastAPI, achieving a 99.9% uptime.

Projects

Stock Price Prediction May 2024 – July 2024
The project involved building machine learning models to predict stock prices with an accuracy of 85%. Utilizing time series forecasting techniques, data from various financial sources was collected, cleaned, and processed to enhance prediction reliability. Implementing Long Short-Term Memory (LSTM) networks, the model effectively captured temporal dependencies within stock trends. An automated data ingestion pipeline was created, reducing manual effort by 50% and ensuring real-time updates. Additionally, exploratory data analysis and feature engineering were performed to identify significant market trends, resulting in improved model performance. The project demonstrated the ability to integrate AI-driven predictive analytics into financial applications, providing valuable insights for decision-making.

Chronic Disease Prediction September 2023 – November 2023

- Developed predictive models using GridSearchCV, increasing model accuracy to 90%.
- Enhanced data visualization with Tableau, improving stakeholder comprehension by 35%.
- Conducted data analysis with KNN and Naive Bayes to effectively target high-risk demographics.

Skills and Technologies

Programming Languages: Python, R, Java
Skills: SQL, Hadoop, AWS, Deep Learning, Tableau, Data Visualization, Machine Learning, NumPy, Scikit-learn, Pandas, Matplotlib, PySpark, TensorFlow, Selenium, Git, CSS3, JavaScript, PyTorch, MongoDB, React, FastAPI