Aditya Pandya

Education

University of Waterloo

Sep. 2023 - May 2028

Bachelor of Applied Science in Computer Engineering

Waterloo, ON

• Relevant Coursework: Data Structures, Algorithms, Calculus III, Linear Algebra, Digital Computers

Experience

Software Developer Austin, TX

Andromeda 360

August 2024 - Present

- Developed and deployed an **OpenAI's gpt-4 and Groq's ChatGroq** model for customer segmentation, anomaly detection, and conversational analytics using the Banavo AI Platform, with **AWS** API integration.
- Created and tested end-to-end ML workflows utilizing open-source libraries (LangChain, FastApi, Boto3), including dataset selection, data transformation, and model training for prediction and classification tasks.
- Authored technical documentation, blog posts, and a research report on custom data training for LLMs and the development of autonomous agent frameworks.

Artificial Intelligence Developer

Toronto, ON

Counting Opinions (SQUIRE)

December 2023 - May 2024

- Developed an AI-driven data visualization chatbot using OpenAI's GPT model, enabling users to generate insights and graphical representations (e.g., bar charts, histograms) using python graphing softwares (Plotly, MatPlotlib, etc.).
- Managed extensive datasets exceeding 1,000,000+ data points. Revamped legacy company programs, boosting efficiency and effectiveness, resulting in a 25% increase in usable data and developed complex RAG pipelines
- Led a small team of developers while also independently managing project timelines and deliverables.

Software Solutions Intern

Tiverton, ON

Bruce Power

February 2023 – June 2023

- Led a record-setting legacy technology removal project, overseeing the update of over 10,000 items within the company's infrastructure.
- Installed classified critical software on over 400 computers and conducted thorough testing to ensure quality assurance. Generated detailed reports outlining identified bugs and proposed improvements for the newly imaged computers.
- Collaborated with experienced IT Technicians in the field to install and update technology, resolving software-based issues encountered by users.

Projects

Full Stack Money Portfolio App | MongoDB, Express, React, Node

- Developed a full-stack money tracking application using the MERN stack (MongoDB, Express.js, React, Node.js) to help users manage their personal finances.
- Implemented functionality to track, categorize, and visualize expenses using Chart.js, providing users with a graphical overview of their spending patterns.

Full Stack Chess Interface | React, Express, Python, Flask

- Developed a dynamic chess interface using React, integrating a backend built with Flask and Express to handle game logic and player interactions.
- Implemented a Minimax algorithm with alpha-beta pruning for solo gameplay, optimizing decision-making for the AI opponent.

Ernest Young Wildfire Size Prediction Model | Python, SkLearn, SciPy

- Engineered a wildfire size prediction model utilizing the XGB Regressor model trained on FSA Wildfire data.
- Conducted exploratory data analysis and developed visualizations to identify root causes contributing to wildfires, enhancing understanding and informing preventative measures.

Real-Time Chat Application | React, AWS Lambda, WebSocket, API Gateway

- Developed a real-time chat application with a responsive React frontend, providing users with a seamless messaging experience.
- Utilized AWS Lambda with WebSocket and API Gateway to manage serverless real-time connections, ensuring scalable and low-latency communication between clients.

Technical Skills

Languages: Python, Java, C++, HTML/CSS, JavaScript, SQL, Go, VHDL, Verilog **Developer Tools**: React, Node, Express, TensorFlow, Spring, Solidworks, AWS