Aayushmaan Hooda

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Professional Summary

Aspiring Software Developer with basic backend development experience using Python, Flask, FastAPI, and SQL. Skilled in building fast, reliable APIs and working with microservices. Currently pursuing a Master's in IT at UNSW, with a solid foundation in algorithms and data structures. Experienced in Agile teams and passionate about solving complex problems efficiently. Quick learner with a strong interest in Generative AI applications, Data Science, and writing high-performance code.

Skills

Languages: Python, Vanilla Javascript, Shell Scripting, SQL, NoSQL

Frameworks: Flask, FastAPI, Streamlit, Langchain

Tools: Docker, Git, Jira, Postman, PostgreSQL, MongoDB, Figma

Education

University of New South Wales Sydney, NSW, Australia
Master's in Information Technology *Sept 2023 – Sept 2025*

Maharshi Dayanand University Rohtak, Haryana, India
Bachelor of Computer Science and Engineering *Sept 2017 – Sept 2021*

Experience

Associate Software Engineer *Gurugram, India*
Annalect India *Oct 2021 – Sept 2023*

- Authored and maintained YAML files for OpenAPI specifications to generate APIs in Apigee.
- Collaborated with the backend team to resolve and improve the YAML file.
- Developed and maintained microservice APIs using Flask, enhancing application scalability and performance.
- Delivered progress updates through regular demo presentations to the US-based team, ensuring alignment and transparency.

Projects

Sydney Property Sales Predictor *github/Sydney-housing*

- Built a full ML pipeline to predict property sale prices and classify property types using a Sydney housing dataset (train.csv/test.csv).
- Engineered features include temporal (year, month, day-of-week) and domain ratios (bedrooms-to-bathrooms).
- Selected and combined features via correlation analysis to prevent leakage and overfitting.
- **Tools Used**: Python, Pandas, NumPy, scikit-learn, XGBoost, Matplotlib

Travel History RESTful API *github/travel-history*

- Developed a Flask-RESTX service to store, retrieve, and visualise countries visited, backed by SQLite.
- Integrated the external Countries' GraphQL API to import country metadata (flags, capitals, languages, currencies).
- Created a /countries/visited endpoint that streams a Matplotlib-generated PNG summarising travel history.
- **Tools Used**: Python, Flask-RESTX, SQLite, GraphQL client, Matplotlib, Docker

Air-Quality Prediction & Classification using Neural Networks *github/air-quality*

- Processed UCI Air Quality data (9k samples), imputing missing "–200" readings with feature means and scaling inputs via StandardScaler.
- Built a 4-layer Keras MLP classifier (32→16→4→1) to predict high/low CO levels, achieving 91% accuracy and 90% precision.
- Visualized loss and performance metrics; summarized results with confusion matrix and key statistics
- **Tools Used**: Python, Keras, sklearn

Generative AI News Article Summarizer

- upload URLs or upload text files containing URLs to fetch article content.
- Process article content through LangChain's UnstructuredURL Loader
- Construct an embedding vector using OpenAI's embeddings and leverage FAISS, a powerful similarity search library, to enable swift and effective retrieval of relevant information.
- **Tools Used**: Python, Langchain

Certificates

- AWS Certified Cloud Practitioner, Amazon Web Services (AWS)
- Python Development Certificate, Udemy
- Flask Development Certificate, Udemy
- FastAPI Development Certificate, Udemy