Aathavan Sri

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Experience

Software Architect & Backend Developer, Practicum Mar 2025
WorkSafeBC | Python, Azure OpenAI, Flask, ETL, Agent Workflows *Richmond, BC*

- Built a multi-agent conversational forecasting system that interpreted user requests, executed deterministic financial calculations, and generated Excel reports and charts
- Separated LLM interpretation from quantitative logic and implemented structured validation, fallback handling, and logging to improve reliability
- Developed an ETL pipeline processing 15K+ records per run and worked with stakeholders to translate reporting needs into usable workflows

Software Developer & Marketing Coordinator Jul 2021 – Present
World Cargo Marketing | TypeScript, Python, PostgreSQL, LLM Integration *Vancouver, BC*

- Built an AI-assisted quote follow-up workflow using a locally hosted language model, improving lead conversion by 12%
- Developed a freight CRM integrating website leads, operational data, email, geocoding, and document workflows through APIs
- Designed data models, authenticated integrations, validation, audit logging, and automated Jest tests and builds

Flutter Mobile Developer Intern Sep 2025 – Dec 2025
TownSquare | Flutter, Dart, REST APIs, SQLite, Agile *Vancouver, BC*

- Built data-backed mobile features and implemented SQLite caching that reduced redundant API requests by 45%
- Integrated authenticated APIs and separated networking, persistence, and UI components across 10+ application screens

Machine Learning & AI Projects

Insurance AI Analysis | *Python, PyTorch, scikit-learn, LightGBM*

- Prepared and analyzed a 70K-row insurance dataset with a 4.76% positive class and compared neural-network, tree-based, and linear approaches
- Improved prediction RMSE by 29.8% through feature engineering, model selection, and error analysis

Tumor Identification | *Python, GEOparse, scikit-learn*

- Built a tumor-versus-normal classifier from NCBI GEO gene-expression data using logistic regression, SVM, and random forest models
- Evaluated models with stratified splits, five-fold cross-validation, ROC-AUC, precision-recall curves, and confusion matrices

Hosted AI Platform | *TypeScript, Python, FastAPI, PostgreSQL, Docker*

- Built an LLM platform connecting an authenticated API and database to a separately deployed inference service with request limits and usage analytics
- Implemented API-key management, role-aware administration, saved prompts, and server-side isolation of inference credentials

Technical Skills

Languages: Python, SQL, TypeScript, JavaScript, Java, C++
ML & Data: PyTorch, scikit-learn, LightGBM, pandas, NumPy, Feature Engineering, Model Evaluation, ETL
LLM & Applications: Azure OpenAI, LLM Integration, Agent Workflows, Flask, FastAPI, REST APIs
Platforms & Tools: PostgreSQL, Docker, Git, GitHub Actions, Linux, Azure, Jupyter

Education

British Columbia Institute of Technology Vancouver, BC
Computer Systems Technology – AI & Machine Learning Specialization, With Distinction *2025*

University of British Columbia Vancouver, BC
Bachelor of Science – Combined Major in Science (Computer Science, Physics, EOSC) *2022*