Fardin Abdulla

Vancouver, B.C.

+1 (778) 723-9242 | faa35@sfu.ca | https://github.com/faa35

Skills

Programming Languages: C, C++, Python, Java, R
Frontend Development: HTML, CSS, Tailwind CSS, Javascript, React JS
Backend Development: PostgreSQL, JDBC, Spring/Spring Boot
Softwares: Visual Studio, Git, Github, Eclipse, PyCharm, R studio, MATLAB
Testing Frameworks/Libraries: MockMvc, JUnit
Operating Systems: Linux, Windows
Non-technical: Fast learner, communicative, team worker, critical-thinking, passionate

Technical Projects

Machine Learning Project   Nov 2024 - Dec 2024

CMPT 310 - Introduction to Artificial Intelligence https://github.com/faa35/A4-AI
- Implemented a Naïve Bayes classifier for MNIST digit recognition in Python, achieving 80% accuracy with Laplace smoothing
- Developed a binary Perceptron model for 2D point classification with iterative weight updates
- Built a neural network for non-linear regression, achieving loss < 0.02
- Designed a three-layer Deep Neural Network for MNIST, achieving 97% accuracy with hyperparameter optimization
- Created a Recurrent Neural Network for word-level language detection, achieving 85% accuracy by modeling sequential data

JourneyGenie Web App   May 2024 - August 2024

CMPT 276 - Introduction to Software Engineering https://github.com/faa35/journey-genie
- Developed a full-stack travel planning web application using Java Spring Boot for backend and HTML/CSS for frontend, enabling users to efficiently plan and manage travel itineraries
- Designed and implemented key features including:
  - **Budget Tracker:** A tool for users to track travel expenses across multiple currencies by integrating the Open Exchange Rates API.
  - **Weather Forecast:** Real-time weather updates at user-selected destinations, utilizing the OpenWeatherMap API.
  - **Local Events & Places:** Integrated the Google Maps API to suggest nearby attractions, restaurants, and activities based on users' itineraries
- Collaborated in a team of five, maintaining code quality and version control through a shared GitHub repository, tracking individual contributions and project progress
- Implemented user authentication and data storage allowing users to save and retrieve personalized trip plans, routes, and checklists.

Collision-Resistant Hashmap in C++ Using Linear Probing   Mar 2024 - Apr 2024

CMPT 225 - Data Structures and Programming

- Implemented a collision-resistant Hashmap with an optimized data retrieval time reduced by 30%, improving the performance of large-scale data storage systems with 31% collisions

FriendsBook - Social Networking Platform (C++)   Jan 2024 - Feb 2024

CMPT 225 - Data Structures and Programming

- Developed a console-based social networking application in C++ enabling users to create, modify, search, and manage profiles, with a focus on optimizing search functionality
- Designed and implemented efficient algorithms for profile management, ensuring uniqueness and maintaining a sorted collection within fixed memory constraints
- Developed a comprehensive test driver (MyADTTestDriver) to validate all features of MyADT, including edge cases like empty collections, full collections, and invalid inputs.

Personal Projects

Personal Portfolio Web App   Oct 2024 - Dec 2024 https://github.com/faa35/acanto

- Developed a full-stack personal portfolio website using Java Spring Boot for the backend and Next.js with React and TypeScript for the frontend, enabling real-time integration of user-specific data
- Designed and implemented a RESTful API to securely fetch and expose third-party API data, ensuring smooth interaction between frontend and backend services
- Included Designed and implemented key features, including **Live Music Status** (Last.fm API) to display real-time music activity with track details, **Discord Activity** (Lanyard API) to show platform and elapsed status, **3D Map Visualization** (Google Maps API) for interactive location rendering, and an **AI Chatbot** (Google Gemini API) to provide dynamic, AI-powered responses
- Deployed the frontend on Vercel and the backend on Render, ensuring secure CORS configurations for seamless API interaction

Revisited JourneyGenie Web App   Aug 2024 - Sep 2024 https://github.com/faa35/journey-genie-v2

- Added a Google Gemini 1.5 Flash API chatbot for travel-related assistance, including trip planning and inquiries
- Revamped the UI for improved aesthetics and usability, and integrated Google Place Overview API for detailed destination insights

Work Experience

Personal Tutor   Jan 2024 - Current

- Helped a secondary student learn and revise different subjects, such as math and stat
- The student saw an improvement of around 15% in overall course grade

Education

Simon Fraser University, BSc. Computing Science   Sept 2022 - Current