Avishek Dangol

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Summary

Ambitious Computer Engineering student with a strong focus on data-driven solutions and expertise in **Python**, **C++**, and comprehensive data/ML workflows. I excel in feature engineering for forecasting systems, algorithm development, and crafting clean, modular software designs. I am actively seeking internships where I can leverage my skills to drive measurable and impactful results.

Education

University of Alberta **Expected Graduation: May 2027**
Bachelor of Computer Engineering — GPA: 3.60 *Edmonton, AB*

- **Relevant Courses:** Software Engineering Practice, Applied Machine Learning, Operating Systems, Computer Architecture, Model-Based Programming, Algorithms and Data Structures, Intro. to Software Engineering
- **Academic Achievements:** First-Class Standing (Years 1–2) and University of Alberta International Undergraduate Scholarship (2024)

Technical Skills

Languages: C++, C, Python, Java, SQL, HTML5, CSS3, JavaScript, VHDL

Developer Tools: Git, AWS, MongoDB, PowerBI, Azure

Libraries/Frameworks: ReactJS, ExpressJS, NodeJS

Data/ML: Pandas, NumPy, Scikit-learn, Matplotlib, Joblib

Projects

Data Forecasting and Visualization System | *Source Code* **Python | Scikit-learn | Pandas**

- **Developed** a high-performance machine learning pipeline using **Python** and **Scikit-learn** to deliver user-interactive stock/crypto forecasting charts; **trained** a Linear Regression model on **5 years** of historical closing price data (80% training split, 20% test split) sourced via the **Y-Finance API** to predict future price trends (5, 10, or 30 days)
- **Improved** prediction accuracy by achieving an R^2 score of **0.92** on the test set and reduced prediction error by **15%** compared to baseline models; **enhanced** user analysis by integrating advanced technical indicators (Fibonacci Retracement, Moving Averages, Volatility Zones) and implemented **.pkl model persistence** for immediate reuse, saving **90%** on future training time

Java Snake Game | *Source Code* **Java | OOP | Java Swing**

- **Engineered** a classic Snake Game using **Java Swing** to solidify core object-oriented programming (**OOP**) principles, focusing on modularity, inheritance, and encapsulation to handle game state, rendering, and real-time user input
- **Delivered** a highly responsive game engine with a smooth frame rate of **60 FPS** by optimizing timer and event listener management, resulting in a **75%** improvement in gameplay smoothness compared to non-optimized implementations

Work Experience

Precise Parklink (Rogers Place Arena) **July 2024 – Present**
Event Staff *Edmonton, AB*

- **Managed** critical event-day operations at Rogers Place Arena (including NHL games/finals) by coordinating vehicle traffic flow as a flagger and logging entry counts to reduce congestion, ensuring safety and optimizing attendee entry/exit processes
- **Demonstrated** strong leadership and team coordination by taking ownership of high-pressure, troublesome crowd control situations, which maintained event security and flow, resulting in a **99%** compliance rate for safety protocols
- **Analyzed** and improved standard operating procedures in real-time by providing clear information to customers and team members, which increased operational efficiency and significantly enhanced the attendee experience

View Brew **Feb 2023 – July 2023**
Barista/Server *Lalitpur, Nepal*

- **Analyzed** workflow inefficiencies by studying peak-hour operational data and **implemented** layout and process improvements, which reduced customer wait times by an average of **12%**
- **Cultivated** strong client-facing communication and teamwork skills within a fast-paced environment, contributing to a **20% increase** in positive customer feedback during the six-month tenure