

# Apram Ahuja

Year 3, Mathematics Major Data Science Minor

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## Technical Skills

Languages : Java, JavaScript, C, C++, PHP, Python, React, Node.js, OpenGL, Three.js, R, HTML/CSS  
 Testing : GDB, JUnit  
 Technologies/Frameworks : Seaborn, PyTorch, Matplotlib, UNIX, Git, Tableau\*, PowerBI\*, Excel  
 Databases: OracleSQL, MySQL, PostgreSQL

## Technical Projects

**Zoo Management System** | Oracle Database, RDBMS, PHP, CSS 05/2023 - 07/2023

- Developed a relational database application for a zoo organization to manage inventory and display information in real time via PHP dashboard accessing data from Oracle
- Wrote custom and nested queries with JOINS, HAVING and GROUP BY in OracleSQL for the users to extract meaningful data about popularity/demographics to make actionable decisions

**ASA DataFest : Pro Bono Services Usage Consultancy** | Python, BERTopic, TimeSeries 04/2023

- Pre-processed a large dataset providing full history of all conversation from 2016 to 2022 in pro bono services by American Bar Association (ABA) to patterns between clients, attorney and question posts using Python Pandas and Scikit-Learn
- Used Time Series analyzing each US state's attorney to client ratio over the span of six year then, visualized the model using time-enabled map, displaying data over time with Plotly
- For client-to-attorney conversations used unsupervised Natural Language Processing tool BERTopic providing 8 major clusters asked by the majority of clients in pro bono services

**Football Betting Odds Predictor** | Python, OneVsRestClassifier, RandomForest, Git 01/2023 - 04/2023

- Analyzed accuracy of betting odds of popular website against the baseline betting methods using multinomial OneVsRestClassifier models like random forest, logistic regression in Python
- Created visualizations such as heat-maps, box-plots using matplotlib depicting the reliability of predictions

**Online Banking** | Java, JUnit, JSwing, JSON 01/2022 - 04/2022

- Developed and tested an object-oriented banking program with Java, JUnit and JSON persistence
- Implemented a GUI using JSwing to facilitate user interaction within a user-friendly banking UI
- Implemented an event log and save/load functionality using JSON, resulting in an efficient data storage of activities associated with the users

**Predicting Life Expectancy of Nations** | R, K-Nearest Neighbors, TidyVerse 11/2021 - 12/2021

- Analyzed data with over 3500 observations and 19 variables using TidyVerse to clean and split the dataset into testing and training sets
- Fitted KNN regressor on the training set, predicting the life expectancy of nations based on their health expenditure per capita (US \$) with an RMSE of 5.71 years

## Additional Work Experience

**Operation Staff** 08/2022 - current  
 UBC - Athletics & Recreation

- Handled and documented any problems with student's recreation accounts and payments by identifying the problem cause and finding an optimal solution

- Ensured AV technology and equipment for 100-200 students were functioning smoothly by using attention to detail when performing iterations of checks on multiple equipments

**Orientation Leader**

08/2023

UBC Centre for Student Development and Leadership

- Developed a sense of community by fostering engagement and connections among 30-40 first-year students using effective communication and leadership skills
- Facilitated events alongside faculty fellows which provide resource access to first year students using strong time management and communication skills

**Catering Associate**

04/2022 - 05/2023

Alma Mater Society UBC

- Managed off-site catering deliveries as well as conference services conducted around UBC with effective time management skills in a fast-paced environment

**Volunteer Experience**

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**Web Designer**

09/2021 - 05/2022

UBC BizHacks

- Maintained a website receiving ~500 visits/month by implementing events calendar using CSS Sass ensuring a much organized, faster and maintainable front-end
- Streamlined effectiveness across the organization by reinventing the event and membership system by independently developing a solution that integrated QR Codes to Sheets database with Google Apps Scripts

**Logistics Coordinator**

09/2021 - 04/2022

Science Undergraduate Society UBC

- Coordinated the logistical aspects of the 2021 Science Undergraduate Society's Awards Night through effective planning and execution of event
- Effectively collaborated to complete the nomination and application process in a tight timeline of 50-100 students for award categories including student leaders, undergraduate TAs/ researchers

**Education**

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**University of British Columbia, Vancouver**

Expected Graduation : 05/2025

Year 3, B.Sc. Mathematics & Minor Data Science

- GPA: 3.8
- Relevant Coursework: Data Structures & Algorithms, Intro to Computer Systems, Object Oriented Programming, Quantitative Economic Models with Data Science, Applied Machine Learning, Relational Databases, Computer Graphics

**Certifications**

- Kaggle Machine Learning 09/2023  
Proficiency in Python for data analysis and machine learning. Learned data manipulation using Pandas, visualizations using Matplotlib, Seaborn and plotly as well as explored natural language processing and spam filters using regression models
- Kaggle Advanced SQL 10/2023  
Proficiency in SQL. Learned nested queries for efficient analysis on complex dataset, Normalization of repeated data to pre-process dataset making it future-proof
- Fundamentals of Node.js 08/2020  
Proficiency in Node.js core APIs and event loops. Learned to create desktop and real-time applications with focus on HTTP/HTTPS protocols, streams, authentication and security