

# Luke Roblesky

Kelowna, British Columbia

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## Education

### University of British Columbia

BACHELOR OF SCIENCE, MAJOR IN COMPUTER SCIENCE AND MINOR IN DATA SCIENCE

- Cumulative GPA: 3.7: Dean's List

Kelowna, BC

Expected 08/2024

## Skills and Technologies

**Programming Languages** Java, Python, JavaScript, Matlab

**Web Technologies** HTML5, CSS3, jQuery, PHP, Node.js, Flask

**Databases** MySQL, MongoDB, Snowflake

**Platforms/Tools** Amazon EC2, CUDA, Docker, Figma, Git, Visual Studio and Eclipse

## Projects

### Travel Booking Chatbot

- Used Python, open-source Rasa framework, and Flask to build travel chatbot capable of greeting user, identifying their requests and providing flight, hotel and amenity details for specified dates and locations.
- Converted user inputted addresses to coordinates using Google Geolocation API, and then performed API chaining calls to OpenWeather, Booking and Skyscanner to retrieve trip details, outputting the final results as HTML formatted strings in the Flask chatbot window.

### BrainYard Forum Website

- Designed Q/A website where users can discuss school topics, vote on answers and maintain a wallet balance of three different cryptocurrencies.
- Used HTML5, CSS3 and Bootstrap to create responsive front-end interface.
- Wrote dynamic pages in JSP and ran using Tomcat Docker container. Connected to MySQL container to allow for user data storage and retrieval.
- Implemented AJAX queries to display questions filtered by category and update in real time without reloading page.

### Topic and Question Predictor

- Loaded Stack Overflow data dump into local Microsoft SQL Server to perform database queries free of API request limits. Queried database using SQL Server Management Studio to build dataset.
- Used NLTK and Spacy to clean the text, and then Gensim and Pickle to turn data into bag-of-words model. Built Latent Dirichlet Allocation model for determining key topics of a user inputted question.
- Used Scikit-learn to identify and present the top 3 - 5 similar Stack Overflow questions based on cosine similarity scores.

### Exploratory Data Analysis on Flight Volumes

- Explored effect of the COVID-19 pandemic on the aviation industry. Cleaned large dataset from Skyscanner API using Pandas and NumPy.
- Plotted data as joint, violin and scatter plots using Matplotlib and Seaborn and created Tableau dashboard.

## Work Experience

### KF Aerospace

Kelowna, BC

IT SUPPORT TECHNICIAN

04/2022 - 12/2022

- Reported and tracked identified end user issues using Jira. Provided technical guidance and support to solve both software and hardware issues with computers, tablets and mobile devices promptly and accurately.
- Mentored new employees on workplace best practices and trained them on helpdesk technologies such as Active Directory and PDQ.
- Wrote PowerShell script to prevent data loss by identifying domain PCs with BitLocker encrypted hard drives and missing corresponding keys.
- Reduced new employee account creation and set up time by 75% by automating the process using Python and Selenium.

### UBC Okanagan

Kelowna, BC

UNDERGRADUATE TEACHING ASSISTANT

01/2022 - 04/2022

- Provided technical guidance to first-year students by covering oriented principles and data structures using Java in an intuitive manner.
- Explained programming practices and algorithms, prepared review materials and helped students to debug code.
- Wrote unit tests using Eclipse and JUnit 5 to expedite student assignment marking process and ensure accurate, fair grading.

## Coursework

**Analysis of Algorithms:** Space and time efficiency, algorithms for searching and sorting, data structure selection and implementation

**Web Programming:** Design and implementation of websites, and data manipulation in SQL, JSON and XML

**Software Engineering:** Software development life cycles, agile development, process improvement, introduction to CI/CD

**Database Implementation:** Techniques for indexing, query processing, concurrency and optimization of various databases

## Achievements

2021/22 **Deputy Vice-Chancellor scholarship**, continuing scholarship for academic achievement

2019 **2 AM Award**, voted as the most committed and cooperative classmate by fellow students