

AKSHAT KALRA

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TECHNICAL SKILLS

Programming Languages: Java, C++, JavaScript, Python, HTML, CSS, R, Racket(Dialect of Lisp)

Frontend: Vanilla Javascript, HTML, CSS, ReactJS

Backend: Node.js, Express.js, MongoDB

Statistical Data Analysis: R (Programming Language), Python, Asymptotic Tests, Hypotheses Testing & Bootstrapping

Additional Skills: Git, GitHub, LaTeX

EXPERIENCE

UBC, Department of Philosophy: Undergraduate Teaching Assistant

Sep 2023 - Dec 2023

- Undergraduate Teaching Assistant (UTA) for PHIL 220 (Symbolic Logic), a **second year philosophy course** that introduces **sentential logic** and **predicate logic**.
- Translation from natural language; truth tables and interpretations; **systems of natural deduction** up to **relational predicate logic** with identity; alternative proof methods.

ACADEMIC PROJECTS

Portfolio Website

Jul 2024 - Present

Designed and developed a dynamic, single-page personal portfolio website using **ReactJS** to showcase my skills and projects. The site features a modern, minimalist and responsive design with smooth navigation and interactive elements. **Teck stack: ReactJS, CSS3, Javascript ES6+, JSX (Javascript XML).**

- React-based architecture for efficient rendering and state management. Dynamic theming with dark/light mode toggle using Context API
- Extensive use of React Hooks for functional component-based architecture

FitTrackr: A Comprehensive Health and Fitness Companion

Jan 2024 - Apr 2024

Developed a Java-based application that allows fitness enthusiasts to scientifically optimize their workouts and track progress. Used **Java Swing** for GUI and **JUnit5** for unit testing the application. Key features include:

- Logging workouts with exercises, sets, reps, and weights
- Calculating and tracking total workout volume
- Visualizing progress in specific exercises over time
- Displaying overall workout volume and progress since day one
- Saving and loading workout data for long-term tracking

Statistical Inference on Whether Ticket Classes affect Survival on the RMS Titanic

Jan 2023 - Apr 2023

Collaborated in a team of four to conduct a statistical inferential analysis as a part of the final project for our STAT 201 class. Utilized the **"Titanic - Machine Learning from Disaster"** data set from Kaggle.

- The inferential question targeted was "Does the ticket class on the RMS Titanic determine whether they survived or not?".
- Utilized **Hypothesis testing, Bootstrap Methods, Standard Error Method** and **Two-Sample Z-Test** to arrive at an interesting conclusion.
- Received a perfect score of 100/100 for the final project.

EDUCATION

Bachelor of Science, Statistics with Thematic Concentration in Computer Science | Dean's Honour List | OIS Scholar

Graduating May 2027

University of British Columbia, Vancouver, BC

Current GPA: 4.30/4.33

Faculty of Science

Relevant coursework: CPSC 210 (**Software Construction**) [91%], CPSC 121 (**Discrete Mathematics**) [93%], CPSC 221 (**Data Structures and Algorithms**), DSCI 100 & STAT 201 (**Data Science & Statistical Inference with Data Science**) [88%], STAT 302 (**Introduction to Probability**) [91%].