



# Aryan Ballani

Year 3, Combined Major in Computer Science and Statistics, Minor in Data Science

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## Technical Skills

**Languages:** Python, TypeScript, JavaScript, C#, C, C++, Rust, Go, Java, HTML5, CSS, R, LaTeX

**Tools:** GitHub, Git, VSCode, Docker, IntelliJ IDE, Jupyter Hub, R Studios, Tableau, Apache Kafka.

**Additional:** Mocha, Chai, Chai-eventually, JUNIT, JSwing, pip, node.js, npm, react, tidyverse, Spark, sklearn, PyTorch

## Academic Projects

**CampusCapture** | TypeScript, HTML, JavaScript, CSS

12/2023

- Emphasized efficient handling and storage of large datasets through asynchronous function calls.
- Leveraged technologies such as parse5, fs-extra, and JSZip for parsing various file formats (zip, HTML, JSON) to enhance data retrieval capabilities.
- Conducted thorough testing (blackbox, unit, regression, integration, end-to-end) across the four project phases, focusing on backend development, HTML parsing feature addition, and frontend implementation with a RESTful design using HTTP requests.

**Entertainment Management System** | Java, Junit, JSwing, Git

04/2022

- Made a Graphical User Interactive application, wherein, users can store all the data related to movies.
- Users can add/ remove movies from watchlist, favourites and can mark any movie as watched.
- Used Json files to save/ load data locally to make the application user specific

**Bookstore Management System** | Python, MySQL

04/2021

- Created a fully functional database management system for a bookstore to keep track of its books as well as help with other services such as issuing and returning of a book.
- Used MySQL to create a database to store the library data and accessed the books database using python libraries and performed the necessary operations.
- Supports both sales and issuing books.

## Personal Projects

**2048-game** | Python, pip3, venv (virtual environment for python)

08/2023

- Developed a console-based user interface (Phase1) application for the original online game 2048.
- Made use of the NumPy library to achieve the desired behaviour.
- Included a virtual environment along with instructions on how to activate it (in ReadMe.md) for people who might not have NumPy library.
- Working on Phase 2: Graphical User Interface.



## [SudokuSolverWeb](#) | HTML, CSS, JavaScript

08/2023

- Collaborated with a colleague to build a web-based sudoku-solver.
- Implemented an intuitive user interface for inputting puzzles and visually displaying solutions, enhancing user experience and engagement.

## [NwHacks23- EatRight](#) | HTML, CSS, JavaScript

01/2023

- Collaborated with two teammates for a two-day hackathon to come up with a web application EatRight.
- Achieved a working BMI calculator-based Diet-Recommendation application.

## Work Experience

### Undergraduate Teaching Assistant (TA)

01/2024 - Present

*UBC Computer Science Dept.*

Vancouver, British Columbia

- Ensure accurate identity verification before assessments, starting and managing tests through the designated platforms for multiple different courses.
- Actively monitor CBTF rooms, scan student screens, and address unexpected technical issues promptly. Uphold and document academic integrity according to established procedures.
- Flag and report observed misconduct, document cases, and assist in investigations as well as constantly and effectively communicating through online discussion boards.

### Learning Space Stewart

07/2023 – Present

*UBC Information Technology*

Vancouver, British Columbia

- Timely escalation of AV issues to AV technicians and analysts with location information, description of AV issues, and troubleshooting steps taken
- Provide basic AV system support to users in classrooms by checking the power, connections, and signal channels
- Deploy, set up, and retrieve drop-in recording kits to classrooms.

### Vice-President Marketing

09/2022 – 09/2023

*Undergraduate Statistics Society*

Vancouver, British Columbia

- Created, developed, and executed a multi-touch social media and marketing strategy to increase awareness, membership, and event attendance while enhancing USS's image.
- Developed and taught the material for **DSCI100: Introduction to data Science**, to over 100 students.
- Developed marketing material for events and portfolio-specific programs, including promotional graphics, videos, and other related content while adhering to USS brand guidelines, alongside managing the marketing team.

## Education

### University of British Columbia

12/2021 – 05/2026

*BSc, Computer Science and Statistics, Minor in Data Science*

Vancouver, British Columbia

- Dean's Honor List sessional standing for 2 consecutive years.
- Completed and excelled in: CPSC330 (**Applied Machine Learning**) [89], CPSC310 (**Introduction to Software Engineering**), CPSC221 (**Data Structures and Algorithms**) [92], CPSC213 (**Intro to Computer Systems**) [93].