

# ARYAN BALLANI

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## SKILLS

<b>Programming</b>	: TypeScript   Java   C++   C   Python
<b>Databases</b>	: OracleDB   MySQL   PostgreSQL   MongoDB   SQLite
<b>Tool/Environment</b>	: Git   Docker   React   Jenkins   Azure   AWS   Linux   Bash   Kafka   Spark   RESTful APIs
<b>Additional</b>	: Microservices   Kubernetes   GraphQL   OAuth   CI/CD   Design Patterns   Multithreading

## WORK EXPERIENCE

- Software Engineer – QA Automation** | *BC Liquor Distribution Branch*, Burnaby, BC May 2024 – Present
- Increased testing efficiency by 25% through automation with EPF, **.NET C# (Selenium)**, and **Oracle SQL** scripts
  - Enhanced application speed by 12% by collaborating with developers, writing unit test cases in Spring-boot using Mockito and Junit, and optimizing database access with SQL scripts
  - Used **Azure Boards** in 2-week sprints with daily **scrums**, delivering on deadlines and updating Azure Test Plans
  - Reduced code redundancy and saved time by structuring base architecture for the CARM project and implementing comprehensive **testing strategies** (Regression, Smoke, End-to-End tests)
- Undergraduate Teaching Assistant** | UBC Computer Science Dept., Vancouver, BC Jan 2024 – Present
- Helping 12+ students, managing engaging labs with 50+ students, explaining diverse computer science concepts for the **Applied Machine learning** Course (CPSC 330), and streamlining procedures communicating effectively

## RELEVANT PROJECTS

- WasteNet** | *React Native, python, flask, AWS bedrock, MongoDB*
- Developed a mobile app using React Native, **Flask**, and **Python** to minimize food waste.
  - Integrated **AWS Bedrock** for **GenAI**-powered recipe generation.
  - Build a RESTful API with **10+ endpoints** to manage user-specific inventories, implementing **password encryption** to ensure user security.
- Campus Capture** | *TypeScript, JavaScript, HTML, CSS*
- Developed a web app for course data uploads and queries and improved processing efficiency by 35% for 50,000+ observations using **asynchronous** calls and parsing tools like parse5, fs-extra, and JSZip.
  - Collaborated in an **Agile** team to rigorously test backend and frontend components (75+ cases) and ensure seamless integration via a **RESTful API**.
- UBC Lens** | *python, JavaScript, BERT, NLTK, Vue.js*
- Created a web-app to assist UBC students pick courses by **extracting** and **analyzing 5000+ rows** of course discussion threads via Canvas API. Added a locally run chatbot using **Ollama** with **Llama 3**.
  - Performed **sentiment analysis** and **keyword extraction** to reveal top discussion topics.
- Movie-Time Application** | *java, Junit, JSwing, GUI, Git, json*
- Developed a **Java-based GUI** with JSwing for managing 50+ movies, supporting watchlist management and favorites tracking, with efficient data storage using **JSON** for a 20% improvement in load/save time.
  - Implemented an event log for activity tracking, reducing debugging time by 30%, while following best practices in **software architecture** for modularity and maintainability.
- Bookstore Management System** | *Python, MySQL*
- Developed a comprehensive **RDBMS** system for a bookstore, efficiently tracking inventory using **SQL** and automating services such as book issuing, returns, and purchases
  - Integrated with **MySQL**, creating and managing a database of over 15,000 records, and leveraged **Python** libraries to perform key operations, speeding up data retrieval by 30%.

## EDUCATION

- BSc. (Computer Science and Statistics)**, University of British Columbia Sep 2021 – Present
- Dean's Honor List sessional standing for 3 consecutive years: 4.0/4.33 GPA
  - Relevant Coursework: Applied ML, Data Structures and Algorithms, Hardware and Operating Systems