

Abhi Verma Computer Engineering Student

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EDUCATION

University of British Columbia

Expected Graduation: May 2026

Bachelor of Applied Science - Computer Engineering

- Trek Excellence Scholarship – Awarded for being in top 5% of Engineering faculty

PROFESSIONAL EXPERIENCE

UBC x AWS Cloud Innovation Centre, Vancouver, British Columbia

May 2024 – Present

Software Engineer Intern

- Led the development of a cloud application in collaboration with the Stewart Blusson Quantum Matter Institute to consolidate quantum materials, research papers, and other data into a centralized platform
- Implemented and fine-tuned **LLMs** with **RAG** using **LangChain** and **Bedrock** to allow users to query a database using conversational prompts and receive contextually relevant information
- Leveraged **AWS** cloud technologies to design, develop and deploy scalable solutions for multiple real-world challenges based on customer specifications
- Collaborated within a diverse team of developers and stakeholders, presenting technical solutions and documenting each phase to ensure smooth deployment

UBC Launch Pad, Vancouver, British Columbia

January 2023 – Present

Software Developer

- Utilized **AWS S3** and **Svelte** to create a web-based application for efficient document management, improving accessibility and organization of Launch Pad's resources
- Incorporated an intermediary **PlanetScale SQL** database to store documents' metadata allowing for the ability to query, search, and filter sensitive information
- Developed mobile and web applications using front and backend tools within a professional framework

PROJECTS

Faculty CV, github.com/UBC-CIC/FacultyCV

- Engineered an **AWS** and **React**-powered platform for the UBC Faculty of Medicine to streamline creation of CVs, enhancing operational efficiency across **19 departments**, **3 schools**, and **25 research centers**
- Integrated external data sources and datasets by developing robust pipelines that fetch, clean and store raw data from **APIs** and CSV files uploaded to **S3** buckets into a **RDS PostgreSQL** database
- Automated CV generation using **Lambda** function hosted in a **Docker** container to convert LaTeX to PDF

Spotify Playlist Generator, github.com/abhiverma13/Spotify-Playlist-Generator

- Constructed a music exploration and playlist management web app utilizing **Flask**, **Spotify API**, and a responsive front-end made with **HTML**, **CSS**, and **JavaScript** to elevate user engagement
- Produced features for exploring, creating, and filtering playlists, as well as finding similar songs based on user preferences

Movie Review App, github.com/abhiverma13/Movie-Review-App

- Built a full-stack web application allowing users to view latest releases on homepage, search for any movie, and post reviews
- Used **The Movie Database API** for backend functionality with **Express.js** and **MongoDB**, and programmed a responsive frontend with **HTML**, **CSS**, and **JavaScript**

EpiLog, github.com/ubclaunchpad/epilog

- Gained proficiency in **Flutter** to construct mobile health application designed to aid individuals with epilepsy, providing a deep understanding of software development lifecycle
- Conducted code reviews and rigorous application testing to identify and debug errors

TECHNICAL SKILLS

Programming Languages: Python, Java, C/C++, HTML, CSS, JavaScript, TypeScript, SQL

Frameworks and Libraries: React, Jest, Flask, JUnit, Svelte, Flutter, Node.js, Express.js, Pandas, NumPy

Software Tools: AWS, Docker, Linux/Unix, REST APIs, GraphQL, MongoDB, PlanetScale, Git, Asana