

# Colton Blackwell

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## SKILLS

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- **Languages:** Python | SQL | Flask | Java | JavaScript | HTML/CSS | C | C# | Rust | Bash | X86-64 Assembly
- **Technologies:** MySQL | Git | GitHub | Power BI | Unix command line | Wolfram Alpha | Excel | VS Code
- **Design:** UML Diagrams | EER Diagrams | Object Oriented Programming | Database Normalisation | ETL
- **Operating Systems:** Windows | Ubuntu (Debian) and Manjaro (Arch) Linux | MacOS | Android | iOS

## WORK EXPERIENCE

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### Software Developer Intern

02/2025 - 04/2025

Quant Valuations

- Employed BeautifulSoup to efficiently scrape and process URL web data thereby enhancing analysis.
- Developed in-depth unit testing using pytest for key modules to ensure code reliability and maintainability.
- Utilized the OpenAI API and Python to automate business valuation for large-scale corporations.

**Skills:** Python | OpenAI API | Pytest | JSON | Financial Analysis | API Integration | Error Handling | BeautifulSoup

## PROJECTS

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### BC Wildfire Acre Predictor with Regression Models ([link](#))

05/2025

- Pre-processed structured data including handling outliers and imputing missing values for model training.
- Visualized data using matplotlib to uncover hidden patterns and trends for improving decision-making.
- Created an interactable map in Python using folium to display predicted from actual wildfire acre range.

**Skills:** Python | Pandas | NumPy | Regression | Machine Learning | Data Pre-Processing | Scikit-learn | XGBoost

### Car Accident DBMS Simulator ([link](#))

04/2025

- Designed and implemented a relational database using MySQL for enabling SQL queries through Python.
- Built a web interface with Flask, HTML, and CSS for interactive user input and accident record display.
- Created an ER diagram to implement a connected schema for managing vehicle, user, and accident data.

**Skills:** Python | Flask | SQL | mySQL | phpMyAdmin | ER Diagram | unittest | HTML | CSS | OOP | dotenv | Git

### Arcade-Style Maze Chase Video Game ([link](#))

01/2024

- Collaborated on a small team following an agile development process to design and deliver a video game.
- Developed unit tests and measured code coverage with JaCoCo, achieving 97% overall test coverage.
- Used Java, Maven, and Git for collaborative development, integrating with JPanel and Graphics2D for UI.

**Skills:** Java | Maven | Working on a Team | Unit Testing | JaCoCo | GitHub | UML Diagrams | Code Reviews | OOP

## HACKATHONS

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### Competitive Gamified Trivia Website: New Leaf ([link](#))

10/2024

SFU Fall Hacks

- Designed, implemented, tested, and hosted an interactive website, scoping work for the 12-hour hackathon.
- Implemented a Finite State Machine in JavaScript for reliably tracking trivia player turns and progression.
- Integrated the client-side JavaScript logic with a responsive website written in Bootstrap, HTML, and CSS.

**Skills:** JavaScript | CSS | HTML | Git | Time-boxing | Static Website Hosting | Bootstrap | Responsive Web Design

## EDUCATION

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### BSc. in Computer Science

09/2021 – 04/2025

Simon Fraser University (SFU)

Burnaby, B.C. Canada

**Courses:** Advanced Data Structures & Algorithms, Databases, Data Mining, Distributed Systems, Maths, Statistics