VICKI ZHANG

B.Sc. Computer Science & Statistics **||** Anticipated Graduation in May 2025 @ UBC
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TECHNICAL SKILLS

PROGRAMMING	Python, R, Java, C#, C++, JavaScript, TypeScript, HTML/CSS
TOOLS / ENVIRONMENT	SQL/NoSQL, Visual Studio, AWS, Azure, Docker, Unity, GCP

WORK EXPERIENCE

Full Stack Developer – Public Health Agency of Canada - DMIA   **APR 2023 – PRESENT**

SOFTWARES: Python, Azure, Django, GCP, Docker

- Standardized the development of Python scripts that automate data collection by scraping websites — an integral process implemented for multiple projects, significantly streamlining development workflows.
- Revamped the user interface of a Django data collection application, improving user experience by implementing error display functionalities for form entries.
- Developed an API wrapper to simplify large file submissions through Liquidfiles, optimizing the efficiency and of file transfers within the development environment.

Artificial Intelligence Engineer – Convergence   **SEPT 2022 – APR 2023**

SOFTWARES: Python, AWS, MongoDB, Docker, REST API, CI/CD, Postman

- Developed features on a web-scraping application based on client requests, including an AWS S3 bulk zip file compressor, and MongoDB data modification to seamlessly integrate with the front end.
- Recognized weak code areas when creating a complete data flow of the application, refactored 1000+ lines of code to follow SOLID principles, standardized the use of efficient package and OOP class structure among the AI team.
- Developed a MongoDB to SQL data migration script to meet data requirements outlined by the client — seamlessly handled the transfer of millions of lines of data.

TECHNICAL PROJECTS

Tetris

SOFTWARES: C#, Visual Studio

- Developed a classic Tetris game using C# and WPF framework, incorporating OOP principles.
- Implemented essential game mechanics such as block movement, rotation, and collision detection.
- Designed a user-friendly UI with score panel showing current score, level, and next block preview.

Expense Tracking App

SOFTWARES: Java, IntelliJ, JFrame

- Created a user-input based app to track expenses using OOP, including abstraction with super classes and interfaces, inheritance hierarchies, and Test-Driven Development with JUnit tests.
- Implemented save and load functionality using JSON files to retrieve previously stored data.

NotBNB

SOFTWARES: JavaScript, TypeScript, HTML/CSS, React.js, Node.js, SQL

- Developed a full stack Airbnb mock app using React framework and Node, prototyped UI using Figma.
- Implemented core features like basic user authentication, search functionality, and booking/posting capabilities.

HACKATHONS

SustainEats – HackCamp 2023

SOFTWARES: JavaScript, HTML, CSS

- Built a platform addressing the issue of food waste, allowing individuals to post extra food items for distribution.
- Implemented a mock backend using local storage, ensuring storage of user authentication data, item listings, upcoming requests, and pickup details.

[PoolPal](#) – NWHacks 2024

    SOFTWARES: React.js, MongoDB, Express.js, Node.js, TypeScript, JavaScript, Tailwind CSS

- Built a full stack application to target UBC students looking to carpool.
- Integrated Auth0 authentication system and Google maps API for location search.

VOLUNTEER EXPERIENCE

Developer Executive – UBC Esports Association   **OCT 2023 – PRESENT**

    SOFTWARES: WordPress, JavaScript, React.js

- Developed admin login feature to a real-time system to keep track of club PC room usage.
- Maintaining club website information using WordPress.

Developer – UBC Computer Science Student Society: Tech Consulting   **OCT 2023 – PRESENT**

    SOFTWARES: JavaScript, TypeScript, Next.js

- Collaborating with a team of students to create a full stack web application for UBC Volleyball Club.
- Implemented frontend design for home page, and user login/signup.
- Integrated Stripe payment processing for club membership purchases.

Volleyball Sports Analytics – UBC Women's Volleyball   **SEPT – DEC 2021**

    SOFTWARES: Excel

- Analyzed data and created visualizations to effectively communicate information to the volleyball team.
- Customized optimal strategies per player to maximize performance in competitive games.

EDUCATION

B.Sc. Combined Major in Computer Science and Statistics   **SEPT 2020 – 2025**

                                             University of British Columbia, Vancouver BC

RELEVANT COURSEWORK:

- Computer Science: Algorithms and Data Structures, Algorithm Design and Analysis, Computer Systems, Software Engineering, Computer Graphics, Relational Databases
- Statistics: Probability, Statistical Inference, Data Science, Stochastic Processes