JASON ZHANG

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SKILLS

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

Technologies: Git, React, Node.js, Flask, MongoDB, Firebase, MySQL, Pandas, TensorFlow

Applications: Figma, Postman, Jira, Google Cloud, Premiere, Photoshop, Excel, Tableau, Power BI

EXPERIENCE

Incoming Software Developer Intern @ Loblaw Digital
(Expected) Jan 2022 - Apr 2022
- Back-End PRX Team

Software Developer Intern @ Phyxable
(Part-time) Jun 2021 - Oct 2021
- Developed online physiotherapy solution components using **React, MongoDB, Express, Node.js** and integrated various APIs.
- Coordinated with product manager and designers in **Agile** sprints to develop maintainable software according to client needs.
- Tested software using unit and integration testing to debug application and ensure a smooth user flow through the platform.

Data Analyst @ Graduate Studies & Postdoctoral Affairs
(Co-op) Apr 2021 - Aug 2021
- Generated **Power BI** dashboard reports communicating insights and analytics needed to guide critical admission decisions.
- Optimized **SQL** queries and developed a comprehensive understanding of data warehousing methodologies and schemas.
- Wrote Python scripts using **pandas** to automate numerous data cleaning and ETL procedures in Excel.
- Led survey distribution and data analysis project gathered from a sample size of more than **5000** accepted applicants.

Director of Public Relations @ Industry 4.0 Design Team
Sep 2020 - Present
- Designing a data-driven manufacturing case competition promoting the concepts of optimization, data analytics, and operations research to **160+ competitors** across Canada.
- Planned publicity strategies and presented sponsorship pitches to finance team expenses, securing over **$3000** in funds.

PROJECTS

Detective Duck (Winner of Hack the 6ix - Accenture: Most Innovative Use of Tech)   **Link**
- Created a real-time phishing detection application that prevents targeted children from clicking malicious links on the web.
- Pre-processed dataset and deployed the regression-based machine learning model on **Google Cloud**.
- Worked with web scraping tools such as **Selenium** to extract link information and served API requests to the cloud functions.
- Designed a responsive, user-friendly GUI object based on mouse and keyboard detection using the **PyAutoGUI** library.

Campfire   **Link**
- Led a team of 3 to develop a social media application where users connect with each other through daily journaling.
- Designed the UI/UX for application webpages and implemented the design with **React** and **Tailwind CSS** frameworks.
- Created **REST API** endpoints with **Python Flask** and stored user information in a **SQLite** database.
- Established a secure login system by utilizing **JWT** to authenticate users and **bcrypt** to hash passwords.

Decision Support Tool   **Link**
- Developed an **Excel VBA** task management and adaptive scheduling system to automate task delegations in a meeting.
- Directed a team of 4 as the technical lead and applied **Agile methodology**, working in iterative cycles to meet target milestones.
- Conducted user research, gathered client requirements, and assessed existing workflows to design prioritization algorithms.

VizualDB   **Link**
- Developed a command-line tool designed to aid programmers in solving data structure and algorithmic problems.
- Utilized **Python** modules to create a debugging tracer and accessing variable information stored by the interpreter.
- Designed the terminal interface and implemented dynamic visual cues of data structures such as Linked Lists and Binary Trees.

EDUCATION

University of Waterloo
Sep 2020 - Apr 2025
- BASc Candidate for Systems Design Engineering with Computing Option
- Relevant Coursework: Computer Programming (Java), Digital Computation (C++, Python), Intro to Design
- Dean's Honours List