Jonathan Chan

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SKILLS

Languages: TypeScript, JavaScript, Python, Java, C#, C, C++, Go, Bash, SQL, HTML, CSS
Tools and Frameworks: React, Knockout, jQuery, VanillaJS, .NET, Jakarta Servlet, scikit-learn, Node, Postman, Git
Testing Frameworks: Jest, Sinon, Mocha, Chai, NUnit, Moq, JUnit

EXPERIENCE

Software Developer Intern | *C#, TypeScript, JavaScript, .NET, React, Knockout, jQuery, Jest, Mocha, NUnit* Sep 2022 – Aug 2023
Alida *Vancouver, BC*

- Implemented pending features in TypeScript, React and resolved legacy-modern tech-stack cross-compatibility issues in newly soft-launched frontend. Identified and addressed UI defects, and overhauled frontend for mobile viewports, fulfilling commitment to a mobile-first experience. Recognized for logging the most defects on our team for pre-launch blitz testing. These efforts culminated in a confident transition to the full-launch of our modern tech-stack.
- Took charge of end-to-end development of an epic, playing a key role in design, implementation, and delivery of a server-side C# feature, using .NET lifetime management, for seamless media transfer across regional pods, enhancing cross-regional user experiences.
- Created a new .NET backend endpoint enabling customers to integrate their own translation service. Solely responsible for extending the accompanying Knockout based translation UI. These epics met the needs of our client, expanding our service's regional versatility.
- Collaborated with and advised UX and product teams to devise product behavior in technical edge cases. Contributed to Scrum sprint planning and ticket analyses, maintaining clear acceptance criteria, and preventing scope creep across multiple sprints.

Lead Tutorial Teaching Assistant Jan 2022 – Aug 2022
University of British Columbia *Vancouver, BC*

- Exhibited proficiency in circuits, discrete math, and proof techniques to deliver lessons, yielding positive student feedback.

Molecular Modelling Volunteer | *Python, Bash* May 2021 – Aug 2022
Reid Research Group at UBC *Vancouver, BC*

- Developed Python scripts to automate job creation process, saving hours of manual labor and enabling instant HPC job submission.
- Wrote Bash and Python scripts to generate sidechains using Keras model, and combine with backbone of interest, creating collection of novel molecules with desired functional groups for screening.

PROJECTS

TabTriage, BCS Hacks 2023, 3rd Place | *JavaScript, OpenAI API, chrome.tabs API, HTML, CSS* Mar 2023

- Innovated a Chrome extension employing AI to categorize and label tabs for improved organization.
- Utilized OpenAI API to produce categorizations and category labels.
- Called chrome.tabs API to extract tab data, create labelled groups, and move tabs into groups.

AnalyticsAI, Alida Hacks 2023, 2nd Place | *JavaScript, React, OpenAI API, Whisper API, SQL, CSS* Mar 2023

- Applied AI technologies to develop a web application converting plain speech to SQL queries to simplify data retrieval for end-users.
- Utilized Whisper API to convert speech to text, then passed these as prompts to OpenAI API to generate SQL queries.
- Recognized as top priority of all hackathon projects to be implemented in production.

Appeal No More, Google SPS 2022 | *JavaScript, Java, VanillaJS, Jakarta Servlet, GCP, Google Maps API, SQL* Jun 2022 – Jul 2022

- Developed a full-stack web application that displays location-based posts, using the Google Maps API
- Implemented backend HTTP endpoints in Jakarta Servlet, to query and manipulate database for all CRUD functionalities,
- Configured database tables on Google Cloud SQL database and implemented image upload and retrieval using Google Cloud Storage.

Conformer Counter | *Python, Matplotlib* Nov 2021 – Dec 2021

- Devised a program for analyzing molecular simulation outputs, by classifying and counting the quantity existing in each conformation.
- Used a molecular graph data structure and implemented graph search algorithm, using vector calculations to check criteria objectively.
- Scaled the process of conformational analysis to thousands of molecules per file for multiple files.

EXTRACURRICULARS

Sapling CTF 2022, 12th/70 | *Python, C, GDB, pwntools, Ghidra* Jan 2022

- Worked as a team to reverse engineer and find binary exploits, compiler exploits, web exploits, and write TCP clients.

EDUCATION

Bachelor of Computer Science Sep 2021 – May 2025
University of British Columbia | GPA: 4.33 *Vancouver, BC*

BSc. Combined Biochemistry and Chemistry Sep 2015 – May 2020
University of British Columbia *Vancouver, BC*