Olivia Yunqi Zhou

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EDUCATION

University of Toronto   **Expected 2025**
B.Sc. Bachelor of Science, Computer Science   *Toronto, Ontario*

WORK EXPERIENCE

Amazon   **May 2024 – Aug 2024**
Software Developer Engineer Intern | Selling Partners Financial Technology Team   *Vancouver, BC*
- Worked in Amazon Selling Partners Financial Technology team to fix long standing issue with large sales tax report requests overwhelming the hosts and browning out the service, and stretch goal to update tax report generation status for users.
- Investigated memory usage of system and developed a solution to predict the size of tax reports and throttle those that exceed predicted system capacity, and redirect them to a larger host and automatically rerun the process.
  - This mitigated regular SEV-2 tickets for the team and sped up impacted reports by an average of 2 business days.
- Made full stack change to update failed report status in the team's controlled webpage Tax Document Library (TDL) by sending status from TaxReportGeneratorService to DynamoDB, interpreting in TDL backend, and displaying in frontend.
- All changes fully covered by unit tests, integration tests, end to end testing in local, alpha, beta, and monitored in prod.
- Wrote and presented project design documents and organized meetings between team members to discuss project design.
- Java, PostgreSQL, Typescript, ReactJS, Git, Agile, AWS (DynamoDB, EC2, Aurora RDS, ELB)

Bank of Montreal   **May 2023 – Dec 2023**
Software Developer Intern | Fixed Income Technology Team   *Toronto, ON*
- Worked in the Capital Markets department Fixed Income Technology Development Team to maintain, debug, and extend the backend functionality of stock and bond trading systems DSTS and TOMS
- Fixed errors with redundancy in data insertion to PostgreSQL Database in DSTSDataRouter by modifying database schema and codebase to distinguish the editing of a Security trade verses a new Security booking.
- Created bash scripts to gather, filter, and redirect data from trade price report and sftp automatically to destination defined by client in database, and created AutoSys job to facilitate auto running of scripts in linux production server.
- Implemented error handling for MQHandler on failure of read from MQ queue, generate log and email dev team.
- PostgreSQL, Bash, C++, Java, IBM MQ, Linux, Autosys, Git, Jira

Bank of Montreal   **May 2022 – Dec 2022**
Machine Learning Intern | Research and Development Team   *Toronto, ON*
- Assisted development of deep learning model to predict prices of swaptions in collaboration with Capital Markets team.
  - Responsible for data gathering, data cleaning, filtering, reconfiguration. Tested data on ML models to establish benchmark accuracy. Tested various hyperparameters and data subsets.
- Wrote scripts to web scrape and filter dataframes to automate data collection for Emerging Technologies Newsletter.
- Helped create a system to automatically update the team webpage with new data using Atlassian Confluence API.
- Python, Pandas, Selenium, SciKit-Learn, QuantLib, Jupyter Notebook, FuzzyWuzzy, HTML, CSS, JavaScript

South Vancouver Community Policing Center *| Software Intern | Vancouver, BC*   **May 2021 – Oct 2021**
- Renovated and redesigned www.svcpc.com, added an online store and event booking system, and digitized the volunteer application process, by moving all paperwork online into electronic forms.
  - Increased website traffic by 15% after renovation. Volunteer applications increased by 50% in the following month.
- Created a prototype Android mobile app that allows users to report hate crime to the police department.

PROJECTS

[LitInsight Website Backend](#) | Knowlecy | Python, FastAPI, MySQL, Git
- LitInsight is a website that uses AI to parse and interpret uploaded research articles, based on past preferences of the user. This project was a fully functional prototype website made in a UofT student group (7 members) for startup company Knowlecy.
- As the Backend Lead developer, I made backend API and database support for file upload, download, pdf to markdown conversion, file creation, editing, reordering and deletion, folders for files, reordering and deletion, signup, login and user information update, and assisted implementation of AI prompt chat history. Utilized OpenAI API as LLM AI agent.
- Lead student project design and direction, heavily involved in regular meetings with Knowlecy, and in project design document, all deliverable documents, deployment of backend and database, final handoff and presentation.

["Readme"](#), Full Stack Novel Reading, Publishing, and interaction Website | React.js, Express.js, MongoDB, Node.js, HTML, CSS
- Enables reading, writing, and publishing, and editing of online novels, as well as various user interactions with novels.
- Implemented frontend, API, and database functionality of the book details page, user reporting, warnings, and all admin components, and made significant contributions to backend of UserProfile and BookEditor, and frontend of BookView.
- Made in group of 4, lead the group's collaborative efforts and organized all group meetings.