

Jody Zhou

Software Engineer

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EXPERIENCE

Ultimate Kronos Group

May 2023 - Aug 2023

Software Engineer Intern

- Investigated time-sensitive escalation cases for Workforce Management solution, ensuring customer satisfaction.
- Maintained globalization and localization efforts in Java i18n, handling **12** languages and custom locale configurations by externalizing User Interface Strings from the source code.
- Implemented and supported OIDC Auth Code flow for session management using Node.js to cache access tokens, ensuring backward compatibility with existing systems for One UKG Authentication.
- Developed and leveraged data-driven insights from Splunk dashboards to identify recurring multi-tenant issues, reducing Java Database Connection Errors by **56%** across **8+** EnterpriseDB servers.
- Reduced Production Monitoring tickets by **81%** through resolving Tenant Provisioning action issues, analyzing application logs, metrics, and performance indicators.

Super.com

Jan 2023 - Apr 2023

Software Engineer Intern

- Maintained internal deployment bot for Engineering teams, allowed teams to release features **3x** faster and improved team communication across **26+** repositories with **21,000+** monthly interactions.
- Led the expansion and formalization of existing prototypes by integrating with OpenAI's GPT model, and building a product experiments surfacing tool to support A/B testing.
- Delivered a scalable and maintainable Slack bot framework with project generation capabilities, reducing development efforts by **8x** and enabling integration of multiple sub-applications. (Python, Flask, Redis, Bash)
- Devised a robust solution for scheduling asynchronous tasks in Celery with Redis as the message broker, resulting in a **100%** elimination of worker misfires and race conditions.
- Implemented StatsD metrics integration with Datadog, enabling user engagement tracking and data-driven decision-making, and collected over **10,000+** key performance metrics monthly.

SS&C Technologies

May 2022 - Aug 2022

Fullstack Developer Intern

- Secured the API endpoints by implementing OAuth 2.0 Client Credentials Flow using Spring Security.
- Designed and implemented various Identity and Access Management (IAM) solutions on PostgreSQL for the Call Centre Modernization Platform. (Java, Spring, SS&C Cloud)
- Accelerated the new database access process by **12x** through automating the access creation flow and integrating with ServiceNow.

Neo Financial Technologies

May 2021 - Aug 2021

Software Engineer Intern

- Automated **55+ hours** of manual work for each environment reset for merchant and user creation.
- Generated quality mock data for staging environment to simulate production conditions with CLI tool (Bash).
- Identified and resolved production defects in Cardholder and Merchant portals using TypeScript and React, resulting in enhanced platform reliability.

PROJECTS

Watonomous | *Bash, Docker, Terraform, Python, Golang, JavaScript, Ansible*

- Core member of the WATcloud team serving **30+** student design teams.
- Migrated UWaterloo Gitlab group membership access from Google Apps Script to provisioning with Terraform.
- Created custom fork of Gitlab Terraform provider to support idempotent upsert operations.
- Revamp **status** page to display real time hardware health information and scheduled downtimes.

UW Path | *Python, Django, Vue.js, JavaScript, Docker*

- Core member of the student design team that helped **5600+** Waterloo students plan their degrees.
- Created development and staging environment and deployed the Docker containers to Oracle Virtual Machine.
- Replaced Django's WSGI HTTP server in production with Gunicorn to serve static files with Nginx as a reverse proxy.

Open Source Contributions | *Python, Svelte, TypeScript, Electron*

- Contributed to Sweep AI (AI Agent), Gradio (Hugging Face Machine Learning Components), and Nota (AI-Powered Markdown Editor).

EDUCATION

University of Waterloo

Sep 2020 - May 2025

Honours Computational Mathematics & Statistics, Minor in Computing

- **Relevant Coursework:** Object-Oriented Software Development (C++), Algorithm Design & Data Abstraction (C), Computers and Computer Systems (Assembly), Data Types and Structures (Python), Applied Cryptography (Python).

SKILLS & INTERESTS

Languages: Python, Java, JavaScript, TypeScript, C++, C, Bash, SQL, R, Assembly

Frameworks: Django, Flask, FastAPI, React/React Native, Electron, Spring Boot, Next.js, Node.js, Express.js

Tools/Technologies: HTML/CSS, GraphQL, Docker, Terraform, Redis, PostgreSQL, MongoDB, Linux, Git, Datadog, Neo4j