

FRANK LIU

frankliu197@gmail.com | 613-322-6347 | frankliu197.github.io/website-2

SKILLS

Programming Languages: JavaScript, Typescript, Java, Python, Bash, SQL, C#, HTML/CSS

Framework: Angular, React, Vue, Express, Node.js/NPM, Spring, Flask

Tools: NoSQL, Git, Docker, Jira, Jenkins, Redis, Linux OS, GraphQL, Webpack

PROFESSIONAL EXPERIENCE

Remote Technology Solutions – Remote

12/2024 – Present

Lead Full Stack Engineer

- Boosted real-time terminal performance 9× by redesigning canvas rendering and throttling reflows to sustain 30+ concurrent Websocket Telnet sessions without frame drops.
- Eliminated Vue/Pinia async race conditions by refactoring store patterns, improving real-time UI stability and reducing error reports by 80%.
- Shipped secure Express microservices with authn/authz and RBAC, enabling third-party integrations via public REST APIs while maintaining PII auditability.
- Directed architecture for a platform serving 10,000+ users across 30 countries by leading design reviews and code standards to align delivery with roadmap milestones.

Level Access – Ottawa, ON

05/2022 – 09/2024

Full Stack Engineer

- Partnered with auditors and PMs in an Agile SaaS startup environment to deliver WCAG 2.2 compliance across core workflows, resolving 20+ accessibility blockers and increasing accessible coverage to 95%.
- Scaled enterprise web crawler capacity 10× (1K → 10K pages per job) by redesigning architecture with RabbitMQ job orchestration and Redis caching, improving job success rate to 99.2%.
- Cut MongoDB query latency from 30s to <1s on 700M+ records by profiling with Datadog/AWS logs and rewriting queries/indexes, lowering p95 API response times by 88%.
- Built responsive, mobile-friendly Angular components with RxJS/reactive forms based on Figma mockups and implemented CI for tests (Jasmine/Karma, Cypress), increasing unit coverage from 76% to 82% and blocking unstable feature builds from merging to production.

Red Canari – Ottawa, ON

05/2021 - 08/2021

Full Stack Engineer

- Architected a proxy-layer database in a React front-end, applying the SQL hook design pattern and efficient data structures with live schema enforcement, uncovering 40+ critical data integrity failures.

Ericsson – Ottawa, ON

05/2020 - 04/2021

Software Engineer

- Accelerated 5G validation cycles by 53% and improved failure detection by engineering a network traffic simulator backed by PostgreSQL and Spring Boot, for high-fidelity system testing.
- Uncovered 5,000+ structural inconsistencies by developing Python tooling to validate JSON schemas in Kubernetes, integrated into DevOps CI/CD pipelines.

EDUCATION

Bachelor of Engineering: Software Engineer, Co-op

09/2017 - 04/2022

Carleton University – Ottawa, Ontario 3.8 GPA