

ZACHARY LEGROS



Software Developer (Full-Stack)

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EXPERIENCE



Software Developer

Trend Micro

-  Intern: May – Sep '23 (4 mo), Full-Time: Jan '24 – Present (2+ yrs)  Ottawa
- Accelerated full-stack development with **Claude Code** and custom **MCP servers** (Atlassian, Figma): charting migration, encryption implementation, 100+ case triages, and daily debugging workflows.
- Reduced base **Tonic UI** open-source bundle by **92%** (752KB → 61KB) via **Vite** build optimization, tree-shaking, and modularization.
- Architected frontend (**React**, **TypeScript**, **Zustand**, **React Query**) and backend APIs (**NestJS**, **Node.js**) for **Correlated Intelligence**: AI-powered threat detection with custom signal conditions and anomaly detection.
- Championed professional development and technical onboarding for a **University of Waterloo** intern; mentored on full-stack architecture, **NestJS** API design, and systematic troubleshooting within complex production environments.
- Led AI-powered migration from **HighCharts** to **ECharts** for **Cloud Email and Collaboration Protection**, leveraging automated refactors to accelerate delivery.
- Triaged 100+ technical support cases using **Splunk** log analysis, **ElasticSearch/Kibana** debugging, and **MySQL/T-SQL** queries.
- Developed **Closed-loop Feedback** frontend and **REST APIs**: auto-remediation workflows, quarantine mitigation, and secure email rendering using **DOMPurify**.
- Optimized risk metrics service (**Node.js**) with **Azure Service Bus** queue system, request timeouts, connection pooling, and **Grafana** monitoring for improved reliability.
- Developed **Email Banner** frontend (**React**) and backend APIs (**NestJS**, **T-SQL** stored procedures) with multi-language template support and **i18n** integration.
- Orchestrated a mission-critical encryption migration for secrets; utilized **AI-driven architectural planning** to deliver a seamless, opt-in transition with zero service disruption.
- Deployed features via **Docker**, **Kubernetes**, **GitHub Actions** CI/CD pipelines across 25+ repositories.



Software Developer Intern (x2)

Kinaxis

-  Sep '21 – Jan '22, May '22 – Sep '22 (8 mo)  Ottawa
- Developed **React** components for RapidResponse and Parcel design system. Led **Dark Mode Epic** with Styled-Components and MaterialUI. Created custom **ESLint plugin** in TypeScript.



Front-End Developer

WishSlate

-  Jan '21 – May '21 (4 mo)  Remote
- Built web app with **React**, **Next.js**, **Chakra UI**. Integrated **OAuth** and iOS API.

Data Science Intern

AEPPONYX inc.

-  May '20 – Sep '20 (4 mo)  Montreal
- Developed photonics analysis tools with **NumPy**, **SciPy**, **Pandas**. Automated optical power meter with **Python**.

EDUCATION

BASc. in Software Engineering

University of Ottawa

Magna Cum Laude. Merit Scholarship recipient.

PROJECTS

MoonDCA

moondca.com/charts

Built full-stack financial analytics platform using **Python**, **AWS Lambda**, **DynamoDB**, **REST APIs**, **Next.js**, **TypeScript**, and cloud-based data pipelines with **Tailwind CSS**.

Crayobois

crayobois.ca

Built full-stack e-commerce platform with **Next.js**, **TypeScript**, **PostgreSQL**, **REST APIs**, **Tailwind CSS**, and **i18n** support. Deployed with **CI/CD** on Vercel.

uOttHack 4

2021.uottahack.ca

Built official hackathon website as organizer using **React**, **TypeScript**, **Next.js**, **JavaScript**, and **CSS**.

uORocketry

Avionics Software Developer

Contributed to uORocketry's flight computer in **C++** with embedded systems and **Git** version control.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, SQL, C++

Frontend: React, Next.js, HTML, CSS, Tailwind CSS

Backend: Node.js, NestJS, Express, REST APIs

Databases: PostgreSQL, MySQL, DynamoDB

Cloud & DevOps: AWS, Docker, Kubernetes, GitHub Actions

Tools: Git, CI/CD, Jest