ZACHARY LEGROS

Software Developer (Full-Stack)

ZachLegros @ contact@zacharylegros.dev zachary-legros Ottawa, ON, Canada

EXPERIENCE

Software Developer
Trend Micro

📅 Intern: May – Aug '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 **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.
- Hardened threat protection frontend and APIs: **DLP** rules validation, **BEC** detection, malware scanning, spam filtering, and quishing detection dashboards with **ECharts**.
- Triaged 100+ technical support cases using **Splunk** log analysis, **ElasticSearch**/**Kibana** debugging, and **MySQL**/**T-SQL** queries.
- Mentored full-stack developer intern from University of Waterloo on **React**, **NestJS**, and debugging methodologies.
- Developed **Closed-loop Feedback** frontend and **REST APIs**: auto-remediation workflows, quarantine mitigation, and secure email rendering using **DOMPurify**.
- Secured **OAuth** multi-app authentication flows with **JWT** token refresh, **SSO** integration, and cross-service credential management.
- 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.
- Implemented encryption algorithm support in cryptography service; secure token handling with **JWT** across the platform.
- Deployed features via **Docker**, **Kubernetes**, **GitHub Actions** CI/CD pipelines across 25+ repositories.

Software Developer Intern (x2)
Kinaxis

📅 Sep '21 – Dec '21, May '22 – Aug '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 – Apr '21 (4 mo) 📍 Remote
Built web app with **React**, **Next.js**, **Chakra UI**. Integrated **OAuth** and iOS API.

Data Science Intern
AEPONYX inc.

📅 May '20 – Aug '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.

uOttaHack 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