

Karim El Shenawy

SOFTWARE ENGINEER · FULL STACK DEVELOPER

📞 +1416-824-4516 | ✉️ elshenak@gmail.com | 🏠 www.elshenak.com | 🐙 github.com/elshenak | 🔗 linkedin.com/in/elshenak

Skills

Programming	TypeScript, JavaScript, Python, Go, Java, C/C++, C#, HTML, CSS, PHP, BASH, SQL, Gherkin, Groovy
Frameworks	Vue, React, Angular, Tailwind, Express, React Native, GraphQL, Jest, WebdriverIO
Tools	AWS, Azure, Git, MongoDB, Redis, PostgreSQL, MySQL, Jenkins, Terraform, Serverless, Docker, Kubernetes
Architecture	Well Architected Platform, DDD, BDD, TDD, SOLID principles, Agile, Design by contract

Experience

Siemens | Enlighted Inc

Waterloo, ON Canada

Full Stack Software Developer, Occupancy Insights Team

Apr 2023 - Present

- Developed and launched the latest Space visualization and full-stack web application, utilizing **Typescript/Javascript, React.js, Tailwind, Node.js, MongoDB, AWS, & Auth0**.
- Implemented a monitoring report backend service using **Java** and **Java Spring Boot**, enhancing the application's performance and data analysis capabilities. Resulting in faster support response to inactive sensors.

Full Stack Software Developer, HiFive Team

Jul 2021 - Apr 2023

- Developed and launched a highly efficient Hybrid Workplace Assistant solution and **full-stack web/mobile application**. Leveraged **Type-script, Vue.js, Tailwind, GraphQL, AWS & Frontegg** to create intuitive, user-friendly applications with a quarterly sign up increase of 12%.
- Developed and integrated a Slack Chatbot app using **Bolt.js, Express.js, AWS Lex & OpenAI API** for seamless user experience which resulted a quarterly increase of 17% in user engagement.
- Architected and created a secure **Backend For Frontend (BFF)** design pattern using **AWS API Gateway & AWS AppSync**.
- Designed and implemented a Microservice Backend & an Event-Driven Architecture with a Recommendation Engine using **AWS Lambda, EventBridge, DynamoDB & CDK**. Reduced application response time by 40%.
- Created a UI component library leveraging **Vue.js, Tailwind & Storybook**, utilized internally to accelerate software application development.
- Spearheaded migrations from **Jenkins/Bitbucket** to **GitLab CI & Terraform**, optimizing CI/CD from an average of 20 mins to 6 mins.

Blackberry

Waterloo, ON Canada

Security Research

Apr 2020 - Aug 2020

- Developed a **Python** exploit for FFMpeg utilizing a variable counter plugin to the LLVM compiler, exploiting the **FFMpeg Buffer Overflow Vulnerability CVE-2016-10190**. Researched variance in number of variable calls during vulnerable program exploitation.
- Conducted a comprehensive security analysis of the tool "**Docker Slim**" and documented findings in a report posted on the Development Wiki, providing guidance to Blackberry Developers based on research results obtained from analyzing sample dockers.

Blackberry QNX

Ottawa, ON Canada

Security Software Developer

Jan 2020 - Apr 2020

- Developed and executed **Python** unit test cases using **Pytest framework** for the core Security features of QNX Operating System, enhancing the reliability of the system utilized in over **150 million vehicles worldwide**.
- Conducted extensive research to evaluate the benefits of the Cryptography Library OpenSSL over LibTomCrypt, leading to the successful integration of **OpenSSL in C-based** Security features and resulting in a **25% improvement in system performance**.
- Implemented a Jenkins Pipeline for automated unit testing and an efficient CI/CD process, **reducing deployment time by 30%**.

Education

McMaster University

Hamilton, ON Canada

B.Eng in Software Engineering

May 2021

- Minor in Mathematics with focus on Cryptography

Certifications

- 2021 **AWS**, Certified Cloud Practitioner
- 2022 **HashiCorp**, Certified: Terraform Associate (002)

Personal Projects

- TeamFill (Demo)** A (mobile-first) web app that helps users quickly find local pickup games, **React, Material UI & Firebase**.
- GoBitly** A URL shortening service and a link management platform via browser extension, **Go, MongoDB & React**.