

Peterson Guo

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TECHNICAL SKILLS

Languages: Java, Python, C/C++, JavaScript, HTML/CSS, C#, Bash, Terraform, Typescript

Frameworks and Libraries: React, Flask, Nextjs, NumPy, Tensorflow, OpenCV, AWS, Azure, Vue3, FastAPI, Snowflake

Tools and Technologies: Cybersecurity, Networking, Algorithm Implementation, Embedded Systems, Linux/Unix, Git

EXPERIENCE

Security Developer

01/2024 – 5/2024

eSentire

Remote

- Directed the development of a key threat analytics dashboard, which has become a cornerstone project, significantly boosting client engagement through **enhanced data visualization** and **automated reporting**. The dashboard's success has catalyzed a strategic shift towards advanced analytics solutions, making it a major topic of discussion among company executives and a pivotal part of our operational transformation.
- Enhanced **data management** efficiencies by developing a JSON-to-database conversion function, significantly improving the handling and processing of complex data structures.
- Led the automation of deployment processes across four major projects, **enhancing efficiency by 10%** through the strategic use of Terraform templates.
- Dramatically increased the **efficiency** of incident reporting functions by over **400%**, enhancing data processing and storage capabilities through optimized algorithms.
- Enhanced the logging and **security protocols** for multiple projects, standardizing methods to ensure robust access control and system monitoring.
- Developed and contributed to an **open-source PCAP scrubber** project, enhancing tool capabilities by implementing features that remove sensitive information, thus facilitating safe and effective training for network analysts.

Simulation Developer

06/2023 – 09/2023

COBWEB, University of Toronto

Toronto, ON

- Developed and maintained simulation models such as particle physics, computer vision, and spring-mass systems.
- Developed and optimized health-related research simulation models using C++ and Java, achieving a **15% reduction in memory usage** and a **10% increase in processing speed**.

Full Stack Developer

05/2023 – 09/2023

Broadcast Fantasia

Markham, ON

- Developed and maintained custom Shopify apps to enhance e-commerce functionality and **improve user experience**.
- Collaborated with cross-functional teams, including designers and project managers, to deliver high-quality solutions on time and within budget.
- Conducted testing and debugging to ensure the **functionality, security, and performance** of Shopify apps.
- Implemented and maintained integrations with third-party APIs to enhance app features and capabilities.

Robotics Developer

05/2022 – 06/2023

Trubotics

Markham, ON

- Designed mechanical components using Fusion360, incorporating principles of mechanical design and software engineering. This demonstrated a blend of skills for **optimal performance**.
- Engineered competitive autonomous strategies through the development of C++ algorithms, using sensor technologies. This catapulted the **competition ranking from 135th to 31st**, showcasing expertise in **sensor integration** and **algorithm development**.

PROJECTS

Bionic Evo

09/2023 – 11/2023

- Engineered an advanced prototype of a humanoid arm for amputees utilizing STM32, Arduino, and CubeIDE, integrating **neural networks** for precise gesture classification and control.

Sentiview

01/2023 – 10/2023

- Developed a web scraping tool to extract customer reviews through the application of Python and BeautifulSoup, using Cohere for **NLP** analysis, processing over **10,000** reviews, contributing to a **25% improvement** in customer satisfaction.

Assisted Reader

10/2022 – 09/2023

- Integrated text-to-speech conversion for aiding vision disabilities through the development of an **OCR system**, using Tesseract, ESP32 camera, and autocorrect technologies, providing a practical solution for individuals with vision impairments.

MindBridge — Major League Hackathon Winner

02/2024 – 02/2024

- Worked on the backend, creating authenticated endpoints for the application to access user data from a database

EDUCATION

University of Waterloo

Waterloo, ON

Bachelor of Applied Science in Honours Electrical Engineering, Specialization in Artificial Intelligence

08/2023 – Present

- Active member of Data Science Club, Waterloo Formula Electric - Firmware, Electrical
- cGPA: 3.8/4.0