

Mathias Petersen

Cybersecurity

mathias@pepservices.com

778-814-7769

Linkedin.com/in/mathiasdp

github.com/SoZO

PROFILE

I am committed to enhancing organizational resilience through proactive security measures and fostering a culture information security awareness.

After seeing my previous company improve their security posture I realized the importance of arming myself with this knowledge

SKILLS

Python, Rust, SQL, Java, JavaScript, C, C++, C#, PHP,HTML, CSS, ReactJS, Node.js, SvelteJS, Tailwind, Docker, Docker Compose, OpenCV, SQL, LLMs, AI

Server Management, AWS, S3, Linux Systems, System Administration, Bash, SSH, Encryption, CloudnativePG, Kubernetes, Longhorn, K3S, RKE2

Nessus, Zaproxy, Cryptographic Keys, RBAC, Authentication, Risk Assessments, Vulnerability Assessments, PEN testing, OWASP, Hashing, Networking, Firewalls

Robotics Systems, Kinematic Systems, Autonomous Programming, Automation, PID, Control Systems, Machine Vision, ArUco Markers, April Tags

PROJECTS

Fraser Valley Chess LMS | [Lead Software Engineer / Tech Manager](#)

JAN 2024, FRASER VALLEY CHESS

- Modified the CanvasLMS platform to a cloudnative environment using Docker, Kubernetes, Longhorn, AWS and CloudnativePG, which serves over 100 students daily.
- Engineered and deployed a high-availability Kubernetes (K3S) cluster to run locally to manage all software deployment needs

Swerve Drive System | [Lead Software Engineer](#)

MAR 2020, HEPHAESTUS ROBOTICS

- Was the first team in western Canada to develop a Swerve Drive robot
- Published in a popular online forum on how to fix drift found commonly with in the drive train, have helped hundreds of teams with my solutions

EDUCATION

BrainStation | Diploma Candidate, Cybersecurity

APR 2024 – JUL 2024, VANCOUVER, BC

North Surrey Secondary | Graduated with Honors

SEP 2018 – JUN 2023, SURREY, BC

EXPERIENCE

Lead Robotics Instructor | Fraser Valley Chess / Zebra Robotics

JUL 2023 – PRESENT, LANGLEY, BC

- Instructed several diverse classrooms from grades 1-12 which lead to tens of students to graduate from their programs
- Oversaw diverse projects from website design to the deployment of internal systems for digital signage and cloud storage
- Managed AWS services and backups for local services

Product Design Lead | Prometheus Dynamics

MAR 2023 – PRESENT, SURREY, BC

- Developed software for a new cutting edge Machine Vision Camera using OpenCV, C++ and SvelteJS which is over 2x faster than competitors
- Spearheaded a robotic kinematic profiling and pathing project, using kinematic profiles and equations to automate robotics automation
- R&D novel multi modal AI architecture using LLMs, this system provided more human like interactions and capabilities

Team Lead / Lead Software Engineer | Hephaestus Robotics

OCT 2018 – JUL 2023, SURREY, BC

- Directed the development of new technological advancements within the team which landed our team top in the province
- Created workflows and standards that resulted in less than 24hr turn around time
- Lead the project that became the first in BC to have a fully functional Swerve Drive Prototype
- Oversaw team subsections and mentored over 50 team members which resulted in life long team sustainability