Isaac Latta

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Technologies and Skills

Languages: C++, C, SQL, Python, Go, Java, Bash, PowerShell, VHDL
Cybersecurity Tools: Metasploit, Wireshark, Nmap, Nessus, msfvenom
Technologies: Apache, nginx, Cloudflare, Docker, VMWare, VirtualBox
Hardware & Embedded: FPGA programming, microcontrollers mbed (LPC), esp32, Sensors, Actuators
Systems: Linux, Windows, Mac; Embedded Systems, Industrial Control Systems (ICS)

Projects

Smart Factory System | *C, C++, mbed, Sensors, Actuators, Mobile App*
- Integrated sensors, actuators, and embedded controllers for real-time IoT control.
- Achieved hardware-software integration critical to PLC/SCADA-like environments.
- Authored technical design documents and engineering reports.

CGI HTTPS/HTTP Web Server | *C, C++, ASIO, OpenSSL, jwt-cpp, Back-end Development*
- Developed secure authentication with JWTs and role-based XML configurations.
- Optimized network I/O with coroutines, multithreading, and async callbacks.
- Debugged network transactions using Wireshark and adhered to HTTP/HTTPS RFC standards.

Basic Cybersecurity CTF/Labs | *C, C++, Python, bash, Kali Linux, Nmap, Nessus, Metasploit, Wireshark, msfvenom*
- Conducted penetration testing using tools like Nmap, Nessus, and Metasploit.
- Created custom scripts for exploit development and network security assessment.
- Hands-on experience in both offensive and defensive security operations.

HTTPS Proxy Server | *C++, ASIO, OpenSSL, Back-end Development*
- Engineered event-driven, secure traffic handling using ASIO.
- Debugged and optimized asynchronous memory lifetimes.
- Referenced RFC, ASIO Docs, and SSL/TLS specifications for implementation.

FPGA Calculator | *VHDL, basys3*
- Built a 4-digit calculator with keypad input and operand operations.
- Designed a state machine to emulate real-time calculation processes.
- Demonstrated low-level hardware programming and problem-solving skills relevant to ICS.
- Analyzed pinout diagrams, datasheets, and FPGA documentation for configuration.

Education

Bachelor of Software Engineering — BC, Canada
Thompson Rivers University — *Sept. 2022 – Present*

Undergraduate Physics — BC, Canada
Thompson Rivers University — *Sept. 2018 – May. 2021*

Machine Learning Field School — Guadalajara, Mexico
University of Guadalajara — *April. 2024 – May 2024*

Additional Work Experience

Brick Layer and Labourer — BC, Canada
Robinson Masonry — *May 2019 – Sept. 2024*
- Directed a labor team in high-performing fast paced setting, demonstrating leadership, precise organization, and strong problem-solving skills—qualities directly applicable to executing collaborative IT projects
- Telehandler/Zoom Boom operation, power tool usage, brick laying/cutting, scaffold building, mortar mixing.

Produce Clerk — BC, Canada
Real Canadian Superstore — *July. 2016 – Sept. 2019*
- Worked collaboratively in a fast-paced environment.
- Communicated and collaborated across departments with team members from all backgrounds.
- Trained new employees emphasizing teamwork and collaboration.

Skills

- Strong Technical Communication and Documentation
- Analytical Problem Solving and Critical Thinking
- Attention to Detail in Complex Systems
- Effective Team Collaboration and Leadership
- Adaptable, Resilient, and Quick Learner
- Commitment to Continuous Improvement and Safety

References

Dan Robinson
Former Employer
Robinson Masonry
Phone: 250 851-6452

Ryan Robinson
Former Employer
Robinson Masonry
Phone: 250 851-1452

Brian Ledoux
Former Basketball Coach
Phone: 250 319-8778