ARYA SALWAN

SENIOR COMPUTER ENGINEERING STUDENT

CONTACT INFORMATION

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/Arya Salwan

EDUCATION

Memorial University of Newfoundland

Bachelor of Computer Engineering Co-op Program, (2021-2026)

SKILLS AND ABILITIES

- **Programming:** C**,** C++, C#, Python, Java, Javascipt, React & GoLang
- **OS:** Linux, QNX, FreeBSD, NetBSD, DOS and Windows
- **Embedded Systems:** Familiar with C, Assembly, EC 61131-3 languages, Ladder logic, TwinCAT, I2C, I2S, DSI.
- **Network Engineering:** Familiar with RFC, TCP/IP and OSI models. Extensive experience with TCP, UDP, OPC servers.
- **DevOps:** Jenkins, Git, Kubernetes, Docker, ContainerD, AWS and Git.
- Proven excellence in collaborative teamwork throughout three work terms and student team participation.
- MongoDB, PostgreSQL and MySQL.
- Exceptional Problem solving, communication and analytical skills.

AWARDS & ACHIEVEMENTS

- MUN International Undergraduate Student Scholarship ($12,000) - 2021
- Verafin Scholarship ($3,000)-2022

INTERESTS

Embedded Systems, Gaming, Geography, History, Sports, Astrology, Geopolitics, Spirituality, languages, etc

WORK EXPERIENCE

Network Automation Software Developer

Blackberry QNX, Ottawa

(2023 September - December)

- Developed tests for network link aggregation (netlagg) feature of QNX SDP 8.0 using utilities like tcpdump, iperf, wireshark and net map.
- Wrote python code using object oriented programming to automate the netlagg tests using pytest framework.
- Created shell scripts for Jenkins automation server, running automated tests on different QNX Build Support Packages(BSPs).
- Extensively worked with FreeBSD and NetBSD using them for developing tests for QNX OS features.
- Setup targets and other hardware devices using different BSPs to create test environments.

Embeded Systems Software Developer

Instrumar Limited, St John's NL

(2023 January-May)

- Wrote a new driver in .net/c# for linking the new ADS based communication protocol from Beckhoff with the Instrumar Fiber System(IFS) and modified existing drivers for OPC use.
- Collaborated with a dynamic team to develop software and networking solutions for the upgraded IFS based on a Kubernetes cluster. Assisted in the setup and deployment of Apache cloud stack.
- Independently developed OPC server and ADS-based solutions for legacy and upcoming proprietary systems.
- Developed ST and ladder logic-based solutions for PLCs in accordance with client specifications.
- Optimized and developed C++ code for Instrumar sensors to accommodate new data streams and change bit order.

Full Stack Software Developer

Information and Technology Services-MUN

(2022 May-August)

- Independently developed a UDP-based request tracking system with a chat room functionality using low-level network programming.
- Headed a team of talented computing support staff, providing software and hardware solutions to clients
- Developed a Tkinter-based Graphical User Interface for client and host computers.
- Worked with electronic components, assisted clients with soldering, built and assembled circuits.
- Programmed microcontrollers like Rasberry Pi pico to be used as HID devices.