

ARYA SALWAN



SENIOR COMPUTER
ENGINEERING STUDENT

CONTACT INFORMATION

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EDUCATION

Memorial University of Newfoundland

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

AWARDS & ACHIEVEMENTS

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

SKILLS AND ABILITIES

- **Programming:** Python, R, C#, Java, JavaScript, php, HTML, CSS, GoLang, SQL, Assembly, C/C++, VHDL and Swift.
- **Libraries:** PyQt, Pandas, Numpy, SciPy, Tensorflow, PyTorch, SciKit, VTK, Gdist, Jupyter, yfinance, ta
- **Frameworks:** React.js, Node.js, Angular, ASP.NET, .NET MAUI, Django & Flask,
- **DBMS:** MongoDB, PostgreSQL and MySQL.
- **OS:** Linux, MacOS, Android, IOS, Windows, QNX, FreeBSD,, Embedded Linux & ROS
- **DevOps:** Git, Jenkins, Kubernetes, Docker, Ansible , GCP, AWS and Git
- **Soft Skills:** Excellent communication skills, skilled debater and public speaker.Strong collaboration and leadership skills with a proven ability to collaborate effectively within a team.
- **Network Engineering:** Proficient in RFC, TCP/IP, DHCP, DNS, UDP, etc protocols. Familiar with WireShark & Nagios

RELEVANT PROJECTS

BriskPDF Editor

- A cross-platform PDF editing tool developed in .NET MAUI.
- Allows users to Merge, Split, Insert & Password protect PDF files & View PDF files in DarkMode

MUN Class Schedule Exporter:

- Chrome based extension developed in JS, that allows students to export their class schedule directly to apple or google calendar.

InternComp.ca:

- A React.js web platform aggregating internship postings from various companies, providing students with research tools for companies and job roles.

Wealths Simple Portfolio Tracker:

- Chromium extension developed with Echarts.js that helps Wealth Simple users visualize their portfolio and track dividends.

WORK EXPERIENCE

Full Stack Software Developer

Angler Solutions, St John's
(2025 January - April)

- Independently developed web-based simulation and data visualization platform for a solar energy using FastAPI, PostgreSQL, and Vue/Nuxt.js.
- Built RESTful APIs with FastAPI, implemented API key-based auth, and used asyncio to reduce response time by 75% under high-concurrency loads.
- Developed modular frontend with Vue.js/Nuxt.js using ECharts for making interactive graphs and heat maps; created landing page and UI elements based on Figma designs.
- Designed scalable databases using SQLAlchemy and Alembic to store scenario data while resolving performance issues.

Software Developer and Computer Vision Researcher

Birch Scientific, St John's
(2024 April - August)

- Collaborated on a team to build a SaaS data visualization platform with React.js, to generate dynamic graphs, and interact with 3D visualizations via an Unreal Engine plugin.
- Developed equations and algorithms for 3D mesh scale-space filtering using the Laplacian of Gaussian technique, utilizing VTK, Open3D, Trimesh, Gdist, and pygeodesic libraries for multiscale mesh visualization.
- Implemented computationally intensive Scale Space Filtering (SSF) algorithms on NVIDIA CUDA, utilizing parallel programming techniques to significantly enhance processing speed and accuracy.

Network Automation Software Developer

Blackberry, Ottawa

(2023 September - December)

- Crafted unit and integration tests for Network Link Aggregation feature of QNX SDP 8.0 and authored shell scripts to automate processes on Jenkins.
- Designed an interactive GUI using .NET winForms for the data base tool, allowing the user to compare historical & current test results, generate reports and monitor trends.
- Extended Blackfish capabilities with REST API functionality to query, view, monitor, upload and compare test results seamlessly.

Embeded Systems Software Engineer

Instrumar Limited, St John's NL

(2023 January-May)

- Developed ST and ladder logic-based solutions for PLCs in accordance with client specifications.
- Developed software and networking solutions for the upgraded IFS based on a Kubernetes cluster. Assisted in the setup and deployment of Apache cloud stack.
- 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.
- Modified and developed C++ code for Instrumar sensors to accommodate new data streams and change bit order.