# Shair Yousuf Jahin

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Graduating April 2025 (4th Year), available for 4-16 months internship

#### EDUCATION

### Memorial University of Newfoundland

Bachelor of Engineering - Computer Engineering

St. John's, NL, Canada September 2020 - April 2025

GPA: 3.96/4.0 Dean's List 2020-2023

EXPERIENCE

# Software Engineering Intern

National Research Council (NRC)

St. John's, NL, Canada May 2023 - Present

- Created backend API, schemas, database, and models (XML, XMLElementTree, Python, FastAPI, Object Relational Mapping, SQL) for seamless integration with prevalent research data storage classes.
- Produced 3D ship experiment visualizer and test data viewer (WebGL, Three.js, Pandas, Chart.js) on the browser, allowing researchers to relive their experiments and efficiently analyze key events of the experiment.
- Developed a professional user interface (JavaScript, React, Next.js, ChakraUI) tailored for utilization by researchers throughout the National Research Council (NRC) across Canada.
- Identified inefficiencies within existing research processes. Subsequently designed and implemented a novel software application aimed at enhancing the sharing of experimental data and optimizing ancillary research procedures.

### Full-Stack Developer Intern

St. John's, NL, Canada

Nasdaq — Verafin Inc.

 $September\ 2022$  -  $December\ 2022$ 

- Improved existing cost-tracking processes (Java, Javascript, SQL). Saved clients 10h of work and \$100,000 in labor costs.
- o Automated testing for back-end server database (Java, Selenium) and front-end (Javascript, Karma).
- Solved 13+ customer cases and bugs (JavaScript, Java, SQL, PostgreSQL). Coordinated with customers and contributed to increased customer satisfaction and team success.
- Performed QA testing on new software features.
- Used Salesforce, GitHub, and Confluence to coordinate with team members. Used Linux and MacOS dev environments.

### Software Developer Intern

St. John's, NL, Canada

Avalon Holographics

January 2022 - April 2022

- Developed runtime segmentation functionality (C++, Unreal Engine, OpenGL, HLSL Shaders) for CT scans. Allows radiologists to easily analyze tumors, cancers, abscesses, etc.
- Implemented new UI/UX features (C++, Unreal Engine, custom hologram API). Transformed holographic application from keyboard-based to mouse-based controls for drastically improved user experience.
- Used linear algebra techniques to transform 2D mouse position into 3D space to manipulate holographic models.
- End of work term report on graphics pipeline and techniques used to render holographic visuals.
- Used BitBucket, Jira, and Confluence for agile software development.

# Corporate Relations Commissioner (CRC)

Ottawa, ON, Canada

Canadian Federation of Engineering Students (CFES)

September 2021 - Present

- $\circ\,$  Acquired additional \$15,000 in yearly funding through numerous partnership contract negotiations.
- $\circ\,$  Interviewed and evaluated corporate partners for Lean 6 Sigma National Conference.
- o Consulted and mentored sponsorship teams of 4 National Conferences.
- Managed the cooperative relationships with existing corporate partners (Engineering Canada, Association of Consulting Engineering Companies, Ontario Society of Professional Engineers).
- o Obtained \$50,000 in 4 months as VP sponsorship for Canadian Engineering Leadership Conference (CELC) 2022.

#### Projects

## • Food Identifier

- Developed a machine learning TinyVGG Convolutional Neural Network (Python, PyTorch, Matplotlib, PyPlot, Pandas, NumPy) for multiclass identification of different types of food.
- Trained and evaluated the model, achieving accurate classification results and gaining expertise in CNN architectures, data preprocessing, and model evaluation.

### • Port Ferry Booking app

- o Authored ferry booking app (React, Next.js, FastAPI, SQLAlchemy, SQLite) for provincial ports.
- Features to search and select ports and travel time, automated reservation email, booking check-up, and cancellation system.

### • Other Projects

- Many more Projects in Python, C++, and JavaScript, including Stock Simulation app, E-Commerce platform, Maze game, Sudoku game, Weather app, Animations, Responsive websites, and Poker hand compare.
- o Projects publicly available on my Github: https://github.com/ShairYousuf.

# CERTIFICATION & AWARDS

- Amazon Web Services (AWS) Certified Cloud Practitioner: Certified knowledge of Amazon Web Services cloud.
- Verafin Computer Engineering Scholarship: Top 10 academic standing Term 3 Computer Engineering (ECE).
- IUGS Entrance Scholarship: Awarded to new International Students with High Academic Success in High School.
- September 11, 2001 International Scholarship: Awarded to current International Students with High Academic Success.