

# Shair Yousuf Jahin

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## EDUCATION

- Memorial University of Newfoundland**  
• *Bachelor of Engineering - Computer Engineering*  
*GPA: 3.96/4.0 – Dean's List 2020-2023*  
St. John's, NL, Canada  
September 2020 - April 2025
- Certification**  
• *Amazon Web Services (AWS) Certified Cloud Practitioner*  
Validity  
January 2023 - January 2026

## EXPERIENCE

- National Research Council (NRC)**  
• *Software Engineering Intern*  
St. John's, NL, Canada  
May 2023 - August 2023
  - **Skills:** Python, JavaScript, React, Docker, Linux shell, FastAPI, SQLAlchemy, XML, PostgreSQL, WebGL, Three.js, Pandas, Chart.js, Next.js, ChakraUI, QA testing, Gitlab
  - Authored and designed backend **REST** API, database, schemas, and models (**Python, FastAPI, SQLAlchemy, XML, PostgreSQL**) 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.
  - Composed **Dockerfiles** for application frontend, backend, and database server enabling **microservices architecture**.
  - Utilised **Linux shell** commands to configure local office database server and perform **QA testing** of the application.
- Nasdaq — Verafin Inc.**  
• *Full-Stack Developer Intern*  
St. John's, NL, Canada  
September 2022 - December 2022
  - **Skills:** Java, JavaScript, PostgreSQL, Automated testing, Selenium, Karma, SQL, QA testing, Salesforce, Github, Confluence
  - Optimized cost-tracking processes (**Java, Javascript, PostgreSQL**) saving clients 10h of work and \$100,000 in costs.
  - **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. Used **Linux** and **MacOS** dev environments.
- Avalon Holographics**  
• *Software Developer Intern*  
St. John's, NL, Canada  
January 2022 - April 2022
  - **Skills:** C++, Unreal Engine, OpenGL, HLSL Shaders, Linear Algebra, Graphics pipeline, Agile, Bitbucket, Jira, Confluence
  - 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.
  - Authored work term report on **graphics pipeline** and techniques used to render **holographic** visuals.
  - Used **BitBucket, Jira, and Confluence** for agile software development.
- Canadian Federation of Engineering Students (CFES)**  
• *Corporate Relations Commissioner (CRC)*  
Ottawa, ON, Canada  
September 2021 - Present
  - Acquired additional **\$15,000** in yearly funding through numerous partnership contract negotiations.
  - **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).
  - Obtained **\$50,000** in 4 months as VP sponsorship for Canadian Engineering Leadership Conference (CELC) 2022.

## PROJECTS

- Rental Finder**
  - Authored **REST API system design, service class, and endpoint** documentation for search algorithm team.
  - Developed service classes (**TypeScript, Node.js, Express.js**) to query **MongoDB (NoSQL)** database.
  - Implemented **automated unit tests (Jest)** for service classes and **API endpoints**.
  - Audited **CI/CD** implementation for project on **GitHub actions, Docker, and kubernetes**.
- Port Ferry Booking app**
  - Authored ferry booking app (**React, Next.js, FastAPI, SQLAlchemy, SQLite database**) for provincial ports.
  - Features to search, select ports and travel time, automated email, booking check-up, and cancellation system.
- Food & Garment Identifier (Computer Vision & Machine Learning)**
  - Developed a **machine learning** TinyVGG Convolutional Neural Network (CNN) (**Python, PyTorch, Matplotlib, PyPlot, Pandas, NumPy**) for multiclass identification of different types of food & garment.
  - Trained and evaluated the model, achieving accurate classification results and gaining experience in **CNN architectures, data preprocessing, and model evaluation**.