

Akash Samanta

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Skills

- Python, Java, C++, C# (Unity), Dart (Flutter)
- HTML, CSS, JavaScript, Material UI, React JS, Typescript
- MySQL, PostgreSQL, DynamoDB, Firebase
- PHP, AWS (Step, Workspaces, EC2, RDS, S3)
- Adobe Premiere, Photoshop, After Effects
- Jest Unit Tests

Work Experience

Datalakes Developer / 18 Hebron Way, Nasdaq Verafin

Fall 2025

- Worked in the Warehouse Data Preparation Team in Verafin. Developed scala composers, unit tests, and pipeline tests to contribute to a newer pipeline migration based on Apache Spark and Hudi from an older RDS company database.
- Validated AWS step function runs in AWS workspaces with existing data to ensure data consistency. Raised and merged 10 Pull Requests to the company repository.

UI Developer / 18 Hebron Way, Nasdaq Verafin

Spring 2024 and Winter 2025

- Worked in the Application Frameworks UI Team in Verafin. Developed UI Components according to Figma Design and contributed to the company application. Raised and merged 51 Pull Requests to the company repository.
- Developed test for components in Jest. Worked with the QA Testing Team to target UI components by adding data test-ids.

Research and Development / Fisheries and Marine Institute

Fall 2023

- Improved eye-tracking software (Python). Added compatibility with latest TOBII Pro Glasses 3 eye-trackers using APIs.
- Redesigned User Interface and modified software to be an assessment tool for “safety-critical” industries like maritime.
- Developed and tested ability to track head orientation times, playback data with video, detect no-go zones, etc.
- Collaborated with OpenAR Project – Framework for augmented reality in maritime operations. (akashcraft.ca/eyeport.php)

Research and Development / Memorial University of Newfoundland

Winter 2023

- Developed an automated desktop eye-tracking software (Python) that used TOBII Pro Glasses 2 eye-trackers.
- Tested unique areas of interest detection using matrix transformation and vector matching algorithms.
- Incorporated automatic object detection using Python ImageAI Library (TorchVision).
- Integrated support for FRAM Modelling. Coded ability to display useful eye-tracking data in graphs and tables.

Relevant Projects

2021-2023

- Full Stack Web Development. Built Personal Website (akashcraft.ca) with interactive web apps and games.
- Built Air Canada In-Flight System Replica as personal project complete with navigation, entertainment, PA system.
- Installed Windows Server at home with ADDS, DNS and RADIUS server roles which was tested on a virtual host network. Upgraded network to include Enterprise Authentication and Guest Wi-Fi with “Sign-in to Network” Login Page.
- Developed Shift Calculator, a Flutter Android app available on the Play Store, which displays work schedules on a calendar.
- Developed Python apps and games using Tkinter Library – LED Strip Controller, Wordle, MySQL Banking System.
- Created informational documentaries on YouTube using Adobe Premiere and After Effects.

Education

Bachelor of Engineering / Memorial University of Newfoundland (GPA – 4.0) 2021-Present

Computer Engineering Major. Academic Term 8 (Fifth Year). Expected Graduation in 2026.

Scholarships and Awards

• Faculty of Engineering and Applied Science Dean's List	2021-2025
• International Undergraduate Academic Award	Fall 2024
• Innovasea Computer Engineering Scholarship	Winter 2024
• International Undergraduate Academic Award	Fall 2023
• PEGNL Connections East Work Term Award	Spring 2023
• RealIT Management Scholarship in Engineering	Spring 2023
• Hector and Fanny McNeil Memorial Trust Fund Scholarship	Spring 2023
• Verafin Inc. Computer Engineering Scholarship	Winter 2023
• International Undergraduate Academic Award	Fall 2022
• Charlie Sheppard Memorial – Hatch Scholarship	Fall 2022
• PEGNL Engineering Scholarship	Winter 2022
	Fall 2021