Akash Samanta

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Skills

- Programming: Python, C++, C#, Dart, VHDL, AVR Assembly
- Front End: HTML, CSS, JavaScript, React JS
- Back End: PHP, MySQL
- Networking: Windows Server
- Web Technologies: AJAX, jQuery
- Android and iOS apps (Flutter)
- Adobe Suite (Premiere and After Effects)
- OS: Windows, macOS, Linux

Work Experience

UI Developer / Nasdaq Verafin   May 2024 – Present

- Working in the Front-End Development Team. Helping create UI Components and contributing to the enterprise app.

Research and Development / Fisheries and Marine Institute   Sept 2023 – Dec 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.
- Presented and collaborated with OpenAR Project – Framework for augmented reality in advanced maritime operations.
- Links: OpenAR Website - oicl.no/projects/openar and Overall Project - akashcraft.ca/eyeport.php.

Research and Development / Memorial University of Newfoundland   Jan 2023 – Apr 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 – Mahjong Flip Game, Airport Schedules, Calculator, Dice/Coin Flip, Windows 8.1 Clone, Private Login Page.
- Built Windows Server at home with ADDS, DNS and RADIUS server roles which was tested on a virtual host network.
- Developed Shift Calculator, a Flutter-based Android app available on the Play Store, which displays work schedules on a calendar for easy accessibility.
- Developed Python apps and games using Tkinter Library – Wordle, TicTacToe (with AI), 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 6 (Fourth Year). Expected Graduation in 2026.

Scholarships and Awards

- Faculty of Engineering and Applied Science Dean's List — 2021-2023
- 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 — Winter 2023
- Verafin Inc. Computer Engineering Scholarship — Fall 2022
- International Undergraduate Academic Award — Fall 2022
- Charlie Sheppard Memorial – Hatch Scholarship — Winter 2022
- PEGNL Engineering Scholarship — Fall 2021