Aarib Sami

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Education

University of Guelph — Guelph, ON
B.S. in Computer Science (Co-op) — *2023 – 2027 (Expected)*
Minor in Project Management

- **GPA:** 4.00/4.00, *Dean's List*
- **Related Coursework:** Algorithms, Operating Systems, Data Structures, Object Oriented Programming, Application of Microcomputers, Intermediate Programming, Discrete Structures I/II

Technical Skills

Programming: Python, Java, C/C#, React.js, HTML/CSS, JavaScript, PyTorch, Flask, Node.js, Firebase, SQL
Developer Tools: Git, GitHub, GitLab, Unity, Visual Studio Code, PyCharm, Eclipse

Projects

FireGuard AI | *Python, PyTorch, Flask, React.js, HTML/CCS* — Dec 2024 – Jan 2025

- Trained a **PyTorch**-based **neural network** model to predict forest fires, achieving **93%** accuracy on test data
- Constructed a front-end using **React** and **Mapbox API**, enabling geolocation search and map navigation
- Integrated with **OpenWeather API** to collect up-to-date weather data, improving prediction precision by **15%**
- Implemented a **Flask** backend to seamlessly connect the **machine learning** model with the React front-end

GryphCourseWatch | *Python, Flask, Playwright, HTML/CCS, JavaScript* — Jun 2024 – Aug 2024

- Developed a web scraping tool using **Python** and **Playwright** to monitor university course availability in real-time, reducing manual registration time by more than **32%** across **100+** courses
- Integrated frontend with **HTML/CSS**, **JS** and **Flask** to allow users to register for alerts and view courses
- Implemented email notifications using **SMTP** and **Mailgun** to alert students of available course spots
- Marketed project on platforms like LinkedIn and Reddit generating interest from **1,500+** students pre-launch

FaceID Attendance System | *Python, OpenCV, Firebase* — Jun 2024 – Jul 2024

- Designed an attendance system using **Python** and **OpenCV** achieving a facial recognition accuracy of **95%**
- Deployed automated attendance logging by detecting faces within **1.75s** and updating the database accordingly
- Leveraged Firebase to dynamically update student attendance data, ensuring accurate records for all stakeholders
- Built a frontend interface using OpenCV's graphical system to display student data such as name and major

Sign Language Translator | *Python, OpenCV, TensorFlow* — Jun 2024 – Jul 2024

- Built a live sign language recognition system using **TensorFlow**, achieving **92%** accuracy across **26** gestures
- Fine-tuned a SSD **MobileNet** model, boosting recognition performance by over **25%**
- Utilized **OpenCV** for efficient video capture and processing, enabling detection within ≈**1.53s** latency/frame

Animal Identifier | *C* — Jan 2024 – Feb 2024

- Designed a k-nearest neighbours **(k-NN) algorithm** in **C** to predict the class label of a new given animal
- Utilized a Zoo Dataset sample consisting of 100 test samples, each with 10 attributes and a class label
- Performed calculations using Euclidean Distance, Hamming Distance, and Jaccard Similarity formulas
- Achieved a final accuracy of **86%** in animal classification on the test set of 20 animals

Activities and Leadership

Muslim Student Association — Guelph, ON
Events Director — *Apr 2024 – Current*

- Led the organization in planning religious/educational events achieving regular turnouts of **200+** students

Google Developer Student Club — Guelph, ON
General Member — *Sep 2023 – Current*

- Participated in projects using **JS/React.js** and **Firebase** to enhance knowledge of database implementation