Ahmed Ismail

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Education

Carleton University   **September 2022 – April 2027**

*Bachelor of Engineering (B.Eng.), Computer Systems Engineering, 3rd Year, **GPA: 3.7/4.0***   *Ottawa, Canada*

- Relevant coursework: Data Structures & Algorithms, O-O Programming, Real-Time Systems, Operating Systems

Work Experience

Nokia (8 Months)   **January 2025 – August 2025**

Software Development Intern   *Ottawa, Canada*

- Engineered a **Python** library with **Selenium** for optical testing, reducing manual testing time for **80+** developers
- Optimized network element communication via **RESTful API**, cutting response time from **250ms to 150ms**
- Modernized legacy **Perl** & **TCL** in TestSet modules, enabling scalable feature integration across **3 product lines**
- Resolved API and hardware bugs with **Postman** and **Python** tools, cutting critical test failures by **45%**
- Worked with global teams to resolve **CI/CD** issues, boosting stability and cutting pipeline failures by **30%**
- Designed automated **regression** tests for optical transceivers, replacing **20+** manual test cases

Faculty of Engineering & Design - Carleton University   **September 2024 – December 2024**

Teaching Assistant - Computation & Programming, and Data Management   *Ottawa, Canada*

- Led weekly lab sessions, **mentoring 300+ students** by teaching programming concepts
- Offered personalized one-on-one support to students struggling with **Python** programming
- Graded coding assignments using rubrics and provided constructive feedback to help students improve

Projects

Football Manager AI Journalist | GitHub | Live Demo

Python, Flask, REST API, HTML, CSS, JavaScript, Git

- Developed an AI-powered football journalist web app that lets users simulate an interview with famous managers
- Engaged **500+ tokens** through dynamic, interactive **GPT-3.5**-generated interview conversations
- Used **python-dotenv** to manage API keys and environment variables, improving security
- Implemented **asynchronous message handling** using **JavaScript's async/await** patterns

Money Tracker App | GitHub | Live Demo

MongoDB, Express.js, React.js, Node.js

- Built full-stack money tracker with **React**, **Express**, and **MongoDB** for real-time transaction processing
- Orchestrated secure **RESTful API** with **CORS** and error handling for frontend-backend communication
- Designed **MongoDB schema** with validation to ensure data integrity for financial transactions

Embedded Interrupt-Driven LED & Sound Controller using MSP432 | GitHub | Live Demo

Embedded C/C++, MSP432, ARM Cortex-M4, NVIC, GPIO

- Deployed an **interrupt**-based system on the MSP432 using **C** to control LEDs and a buzzer
- Used **GPIO** and external **interrupts** (Port 3 and Port 5) to respond to button presses in real time
- Wrote interrupt service routines **(ISRs)** to manage LED behavior based on input state

Leadership Experience

Featured Speaker − International Tech Summit | Speaker Panel   **April 2025 - Present**

Enactus & Aura

- Deliver presentations on leveraging effective networking to fast-track career growth in software engineering
- Facilitate workshops that explore AI's expanding role in software engineering and its implications for future career paths

Technical Skills

Languages: Python, Java, C/C++, HTML5, CSS, JavaScript, Bash, Assembly, SQL

Developer Tools: VS Code, Git, Mercurial, VirtualBox, MATLAB, Eclipse, JIRA, Confluence, Postman, AWS

Technologies/Frameworks: Linux, Windows, macOS, Flask, React.js, Express.js, Node.js, MongoDB