Majed Mouawad

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EDUCATION

University of Ottawa Ottawa, ON

Bachelor of Applied Science in Computer Engineering (COOP) *Sep. 2020 - Dec. 2024*

- Cumulative GPA: 3.85/4
- Dean's Honour List, Merit Scholarship, Differential Scholarship
- Relevant Coursework: OOP, Data Structures and Algorithms, Operating Systems, Data Communication and Networking, Design of Secure Computer Systems, Advanced Programming Concepts, Artificial Intelligence

WORK EXPERIENCE

University of Ottawa, IT Services Ottawa, ON

Software Engineering Intern (4 COOP Terms) *May 2022 - Aug. 2024*

- Designed and built a .NET application using C#, ASP.NET Core and MVC, enabling medical residents to submit and receive stipend payments
- Maintained and enhanced over 10 diverse applications, achieving 100% resolution of TopDesk support tickets by implementing critical updates, optimizing performance, and delivering key project enhancements on schedule
- Managed and optimized multiple SQL and MySQL databases, implementing and refining stored procedures, scripting database enhancements, and ensuring data integrity to support key institutional functions
- Configured and implemented SAML SSO on all Faculty of Medicine applications, successfully transitioning all applications from LDAP authentication to SSO using Microsoft Entra ID as the identity provider
- Developed a GitLab CI/CD pipeline for 8 applications, incorporating automated testing, static code analysis by packaging applications in Docker containers and offloading to a remote server, with results seamlessly integrated back into the pipeline for automated reporting and continuous monitoring
- Implemented security protocols across more than 5 .NET applications, eliminating 100% of medium, high, and critical threats detected by Qualys scans

PROGRAMMING PROJECTS

VisiCap (Capstone Project) Ottawa, ON

Team Lead, Software & Hardware Teams *Jan. 2024 - Dec. 2024*

- Developed a smart navigation hat system aimed at helping visually impaired individuals navigate safely and confidently using real-time danger recognition and feedback mechanisms
- Trained a custom model based on YOLOv8 and integrated it with DeepSORT for real-time object detection and tracking, designed to recognize and classify obstacles with 85% accuracy using the integrated camera's live feed
- Developed a danger recognition algorithm that provides spoken movement recommendations via headphones, guiding users on how to avoid potential hazards based on the real-time obstacle detection model
- Integrated the MPU6050 sensor with a Python algorithm to achieve 95% confidence in real-time fall detection
- Engineered wristbands with vibrating motors and proximity sensors to provide tactile feedback on nearby obstacles
- Designed a React Native application for caregivers to track users' real-time location and receive fall alerts

LEADERSHIP EXPERIENCE

Business Technology Association Ottawa, ON

Vice President of External Affairs *Jan. 2023 - Apr. 2024*

- Provided workshops, networking opportunities, and social events to over 350 students interested in careers such as project management, data engineering, consultancy, etc.
- Led a team that successfully engaged over 75 industry professionals to participate in 15 diverse events with University of Ottawa students working towards a business technology related career
- Raised over $25,000 in annual sponsorship revenue by structuring and closing long-term collaboration deals with major technology and consulting companies

SKILLS

Programming Languages: Python, Java, JavaScript, C, C++, C#, HTML/CSS, SQL, MySQL
Frameworks/Libraries: ASP.NET, Blazor, MVC, ReactJS, NodeJS, ExpressJS, PyTorch, OpenCV
Developer Tools: Git, Shell, Docker, Azure, Jira, SQL Server Management Studio
Spoken Languages: English, French