

https://www.karimdarra.com | 416-732-6892 | karimdarra17@gmail.com

Skills

Technical | Python, Java, C, SQL, JavaScript, React, Bash, HTML/CSS, Unix, Assembly, OpenCL, Hip.

Developmental | Github, Gerrit, Jenkins, Scrum, Parallel Programming, OOP, Behavioral Design Patterns, JavaFX.

AI/ML | ML Algorithms, Model Optimization, Data Preprocessing, Neural Networks, Deep Learning,

Behavioral | Team Leadership, Effective Public Speaker, Adaptable, Organized, Social, Composed, Quick Learner.

Experience

Machine Learning Software Engineer

May 2024 - Present

AMD (Advanced Micro Devices) - Markham, Canada

- Contributing to the development of new features for GPU-accelerated, open-source math and communication libraries, supporting machine learning through optimized software development techniques and high-performance computing algorithms.
- Conducting testing, addressing software regression issues, and debugging kernel errors, ensuring stable performance of GPU-accelerated libraries on the latest AMD GPUs.
- Working extensively with OpenCL and HIP to diagnose and resolve runtime issues, enhancing overall performance and reliability.
- Investigating and resolving runtime test failures and application performance drops within the ROCm open-source software platform.

Teaching Assistant

Sep 2023 - Present

University of Toronto – Toronto, Canada

- Supporting and facilitating lectures, addressing student inquiries and assisting with in-lecture activities.
- Diligently grading a range of academic papers including midterms and final exams.
- Conducting regular office hours, providing guidance on tests, projects, and course materials.
- Assisting in lecture preparation to ensure efficient content delivery and comprehension.

Cyber Security Intern

May 2023 - Aug 2023

Paramount Computer Systems – Dubai, United Arab Emirates

- Assessed key cybersecurity concepts such as Defense in Depth, Zero Trust, and MITRE Attack Framework.
- Analyzed and compared top cybersecurity products using Gartner reports.
- Acquired foundational knowledge in Azure and Microsoft 365 services and offerings.
- Explored Microsoft's security ecosystem, covering identity protection, XDR, and Azure security solutions.

Projects

Jimmy Fitness App (Entrepreneurial Pursuit): Envisioned and initiated the groundwork for a comprehensive fitness application, emphasizing real-time gym capacity monitoring, Al-driven form assessment through motion capture, personalized workout schedules, and a platform for community engagement.

- Authored a detailed and well-researched business plan, outlining the app's potential impact, target audience, and monetization strategies.
- Assembled a team to initiate prototype development, laying the foundation for the app's key features and future iterations.
- Demonstrated entrepreneurial spirit, leadership, and strategic planning in laying the groundwork for a potentially transformative product.

FINVUE (Financial Management Platform) <u>Github</u> | <u>Youtube Demo</u>: Collaborated as part of a team of four to develop FINVUE, a comprehensive platform enabling users to monitor and manage their finances effectively through advanced tools and insights.

- Integrated essential features such as budget tracking, spending visualizations, and predictive algorithms to forecast future expenses.
- Enabled cryptocurrency and stock tracking, savings management, currency exchange functionalities, and secure user authentication, creating a well-rounded financial ecosystem.
- Spearheaded the backend development in Python and frontend in Java, ensuring seamless interaction between components to empower users in making informed financial decisions.

Education

Honours Bachelor of Science: Computer Science **University of Toronto** - Toronto, ON

Enrolled in PEY Co-op

CGPA: 3.57

All mandatory courses and requirements met, only 4 courses remain that can be done with full time employment.

- Pursuing a Specialist degree in Computer Science with minors in Mathematics and Business, Science, and Entrepreneurship. Specializing in Machine Learning and AI. Completed every year on Dean's List.