Michael Harhay

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A driven, goal-oriented computer engineering student passionate about all things software. I am a diligent, innovative problem-solver with a dedication to excellence and a love for learning and self-improvement. My experience spans from optimizing reporting systems for senior banking executives to creating generative art installations, consistently blending technical proficiency with creativity.

KEY COMPETENCIES

- Problem-solving
- Interpersonal communication
- Attention to detail
- Leadership
- Teamwork
- Eagerness to learn

SKILLS

Programming: *C, C++, Python, PyTorch, NumPy, MATLAB, NIOS II Assembly, Verilog, HTML, CSS, JavaScript (Three.js), VBA, SQL*

Project Management: *Git, Agile Methodology, Engineering Documents (Client Statements, Project Requirements, Conceptual Design Specifications), Gantt Charts*

Data Analysis: *Microsoft Excel, Alteryx, Microsoft PowerPoint*

Circuit Design: *ModelSim, Logisim, FPGAs, & various other fundamental hardware*

EXPERIENCE

Intern, Branch Banking Performance Analysis [TD Bank, Toronto, ON]   May 2023 - Aug. 2023, May 2024 - Aug. 2024

- Developed a VBA macro to automate the generation of a monthly reporting binder, sent directly to top executives within the company for easy analysis of the bank's performance.
- Worked on a transaction lookup search engine using SQL
- Cleaned and organized large datasets, utilizing Excel to deliver easily decipherable spreadsheets.
- Assisted with miscellaneous team activities, exercising professionalism and attention to detail while completing items such as organizing meetings, sending regular reporting emails, and preparing PowerPoint decks for senior colleagues.

Team Member, Computer Organization [University of Toronto, Toronto, ON]   Jan. 2024 - May 2024

- Worked with a teammate to design and implement the game 2048 from scratch, utilizing a DE1-SoC FPGA board, C, as well as knowledge of NIOS-II assembly.
- Spearheaded many organizational aspects of the project, including scheduling meetings, setting internal deadlines, and managing version control of the code using Git.

Communications Liaison, Engineering Strategies & Practices [University of Toronto, Toronto, ON]   Jan. 2023 - May 2023

- Worked alongside 5 teammates to deliver a redesign proposal for the 27th floor of the University of Toronto Chestnut Residence.
- Organized and ran monthly client meetings, presenting the client with status updates and working through potential roadblocks, as well as gathering input and feedback, resulting in a final redesign proposal that the client expressed satisfaction with.
- Performed various project management duties, such as drafting status updates, working with the team's Gantt chart, and keeping an engineering notebook, which led to a much more effective and organized team design process.

EXTRA-CURRICULARS

Backend Software Lead [U of T Creative Computing Association, Toronto, ON]   Aug. 2024 - Present

- Currently leading the Backend Software team alongside two other executives, leveraging leadership, management, and decision-making abilities to ensure that projects and administrative tasks are executed smoothly.
- Developed a terrain generation system for the club's first demo project, utilizing a Perlin noise algorithm and Three.js.
- In the process of designing and implementing an ambient music generation model utilizing a GAN framework. The final product will allow users to generate ambient music based on a variety of inputs, including mood and weather.

EDUCATION

Bachelor of Applied Science and Engineering (B.A.Sc) in Computer Engineering + PEY Co-op

University of Toronto, Toronto, ON
Sep. 2022 – Apr. 2027 (expected)

- Intended minor in Artificial Intelligence Engineering
- Relevant Courses: OOP Fundamentals (C++), Engineering Strategies & Practice I & II, Computer Organization (Assembly), Software Design & Communication (C++), Operating Systems (C), Algorithms & Data Structures, Applied Fundamentals of Deep Learning (PyTorch)

Ontario Secondary School Diploma

Appleby College, Oakville, ON
Sep. 2018 - Jun. 2022

- Achieved Honour Roll every year

ACHIEVEMENTS & AWARDS

Academics

- Dean's List Scholar for the Fall 2024 semester.
- Achieved at least a 3.7 or higher in all undergraduate programming & software courses thus far.
- Achieved a Grade Point Value of 4.0 in ECE297 (Software Design & Communication), demonstrating exceptional ability to develop software and communicate ideas (2024).
- Graduated Grade 12 with an academic average of 96% (2022).
- AP Scholar with Distinction (2022).
- Received AP Capstone Diploma (2022).

Sir Edmund Walker Scholarship

- $20,000 annual scholarship awarded to incoming Appleby College students who have demonstrated exceptional leadership skills, both inside and outside the classroom.