Ammar Mohamed

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Education

York University Expected Dec 2026

Honours Bachelor of Science in Computer Science, GPA: 3.95/4.0 *Toronto, ON*

- 1 of 2 recipients of the Global Leaders of Tomorrow Award, a major scholarship valued at $80,000
- Related courses: Digital Logic Design, Software Design, Computer Organization, Machine Learning, Artificial Intelligence, Operating Systems, Databases, Object Oriented Programming

Experience

FPGA Engineer Intern Sep 2023 - Jul 2024

Evertz Microsystems *Burlington, ON*

- Developed **RTL** descriptions in **VHDL** to define digital circuits for **Xilinx** FPGAs, allowing for the integration of new features to products while maintaining FPGA timing and resource utilization constraints
- Implemented **API** programs in **C++** that executes on a microprocessor and communicates to the FPGA through registers, allowing for the configuration and enhancement of features

Research Intern May 2023 - Aug 2023

York University - Next Gen Wireless Networks Lab *Toronto, ON*

- Developed and published an optimal network resource allocation method with a Postdoctoral fellow and Professor. Created **MATLAB** simulations to verify its effectiveness through numerical results
- Mentored students in CSI data extraction using a Raspberry Pi and a wifi chip, produced a guide for future students, and developed a **Python** script for router identification

Tech Lead Sep 2022 - Dec 2023

Excel Lassonde *Toronto, ON*

- Led a team of 3 student developers to design and maintain a website using **JavaScript**, **HTML** and **CSS**, used to support over 800 new students for course support

Publications

Joint Spectrum Partitioning and Power Allocation for Energy Efficient Semi-Integrated Sensing and Communications | *Ammar Mohamed A, Sylvester Aboagye, Hina Tabassum* IEEE CL 2024 [link]

Projects

Blockchain fundraising platform *React, Next.js, Typescript, Node.js, TailwindCSS, Solidity* [link]

- Created a decentralized autonomous fundraising platform with a team of 4, where investors can create organizations (DAOs) to fund tokenized startups with USDC; Hack the North 2024 winner

Pipelined CPU | *Verilog, RISC-V* [link]

- Built a pipelined processor in Verilog with a 32 bit memory architecture that can handle various RISC-V instructions by creating circuits for instruction fetch, instruction decode, instruction execute, memory and writeback

Sign Language Interpreter | *Python, Flask, React, OpenCV, SciKit, NumPy, MediaPipe, Matplotlib* [link]

- Created a Sign Language to English text interpreter using computer vision to detect hand movements, and trained a model with SciKit to recognize common ASL alphabets, making it accessible on the web

Reviewify | *Python, Flask, React, Redis, JavaScript, HTML, CSS* [link]

- Built a web app with a team of 4 that provides metrics, summarizations, and categorizations of Google Reviews for business locations by utilizing LLMs via Cohere's Classify and Chat APIs

OnCampus Now | *Python, SQL, Flask, JavaScript, BeautifulSoup, HTML, CSS* [link]

- Developed a web app to centralize all on campus events, where organisers are be able to log in and advertise events in our front page, with locations displayed using Google Maps' geocoding API

Technical Skills

Languages: C/C++, Python, Verilog, VHDL, JavaScript, SQL, Java, MATLAB, Bash, HTML, CSS
Tools and Frameworks: Git, MySQL, Linux, Flask, React, Express, JUnit, BitBucket, Selenium