

Amirali Malekghasemi

Toronto, ON | 416-888-8255 | amiraling@yahoo.com | [Personal Blog](#) | [LinkedIn](#) | [Github](#)

TECHNICAL SKILLS

Programming Languages: Java, Python, C/C++, Lisp, JavaScript, React/Node.js, PHP, Bash Script, Smalltalk, Elixir, Rust, Angular

Developer Tools: Linux, Git, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse

Other Technologies: HTML/CSS, SQL, Flask, Jinja2, API, Unreal Engine 5, Neo4j, MS Office

EDUCATION

Toronto Metropolitan University (Formerly Ryerson)

Toronto, ON

Bachelor of Science in Computer Science

Sep. 2021 – May 2025

- **CGPA 4.27/4.33**
- Awarded the BMO Financial Group Diversity Entrance **Scholarship** for achieving academic excellence of over 4.15 CGPA (2021, 2022, 2023, 2024), **Dean's List** 2021, 2022, 2023 and 2024
- **Relevant Coursework:** Data Structures, Operating Systems, Algorithms, Computer Networks, Machine Learning, Database Systems, C and UNIX Programming, Artificial Intelligence

WORK EXPERIENCE

Software Engineer

May 2024 – Present

AMD (Advanced Micro Devices)

Markham, ON

- Designed and delivered a resolution and refresh rate management application with a **custom C++ backend** (Windows APIs, registry access), and a Python (Tkinter) frontend, **officially delivered to HP through AMD**
- Built a **Python and Flask** web app to display potential security threats in 100 open-source libraries identified by CodeQL, using the **ChatGPT API** for fix suggestions and **Git** to trace related commits
- Worked with cross-functional teams to investigate and **resolve C/C++ driver issues affecting customer platforms**, enhancing system stability and performance across deployments
- Created an internal testing and automation tool using **PowerShell and Bash scripts, Python and Tkinter** to automate testing processes, increasing speed by 50% and significantly reducing turnaround times for smoke tests
- Identified and **triaged bugs** across multiple environments, executed targeted rollbacks, and **debugged critical issues** to maintain smooth development cycles
- Conducted **manual and automated testing** on preproduction units from Design Build (DB) phase to Production Validation (PV) systems, ensuring consistency and reliability across **customer platforms**
- **Engineered and deployed a React, Node.js, and MongoDB-based** internal reporting tool on AMD servers, facilitating comparative analysis across product programs and enhancing data-driven decision-making by 30%

Software and Game Developer

May 2023 – Dec 2023

Smart Building Group

Toronto, ON

- Led the design and programming of a **patented Digital Twin methodology** using **Unreal Engine 5 and C++**, featuring custom UI (User Interface), path-finding, real-time data integration, and fault detection via **RESTful APIs**. Recognized as a **co-inventor** on the patent
- **Integrated live sensor and IoT data** into Digital Twin systems using RESTful APIs, ensuring real-time synchronization with physical assets
- Developed **Python and Bash automation scripts** for model building, accelerating project delivery timelines by up to 80%
- **Automated data extraction and cleaning processes**, including web scraping and Excel data management, improving data accuracy and reducing processing time by 60% in support of analytics efforts

PROJECTS

E-commerce System | [Github](#)

- Built an Amazon-style E-commerce platform in **Java** using **object-oriented programming (OOP)** principles like encapsulation, inheritance, and polymorphism
- Developed a Swing-based desktop **GUI** to enhance usability and improve the overall user experience

Stock Market Clone | [Github](#)

- Designed and developed a **full-stack** stock trading web app using **Python, Flask, and SQLAlchemy** with a modular, object-oriented architecture for easy feature expansion
- Applied **Agile** development practices and used **UML diagrams** for planning and system designs
- Integrated **external APIs** to fetch live stock data, historical charts, financials, and news, and built features like buying/selling, transaction history, portfolio tracking, and watchlists
- Created a responsive frontend using **HTML, CSS, and JavaScript** to provide a smooth user experience for managing investments

Home Server & Custom PC Builds

- Built custom PCs and a home server running **Ubuntu Server**, with ZFS storage, headless setup, and RAID configuration for reliable, high-performance personal computing and data management