

Urmil Modi

☎ 647-781-3884 | ✉ u.modi@mail.utoronto.ca | [in linkedin.com/in/urmilmodi](https://www.linkedin.com/in/urmilmodi) | github.com/urmilmodi

EDUCATION

University of Toronto

Sept. 2018 – Apr. 2023 (expected)

BASc in Computer Engineering, Minor in Robotics and Mechatronics

Toronto, ON

- 3rd Year, CGPA: 3.09/4.0
- President's Entrance Scholarship (2018): \$15,000
- Relevant coursework: Software Design, Networks, Data Structures & Algorithms, Operating Systems, Databases, AI Fundamentals, Computer Hardware, Digital Systems, Control Systems

TECHNICAL SKILLS

Languages: Python, C, C++, SQL (Postgres), Java, Bash, Verilog, ARM Assembly

Frameworks: Flask, Django, PyUnit, Selenium, Scrapy

Developer Tools: Git, Docker, AWS, Azure, VS Code, Vim, GDB, Quartus, Eclipse

Libraries: pandas, NumPy, Matplotlib, jsonschema

ENGINEERING EXPERIENCE

Analyticly Solutions

Jan. 2021 – Present

Backend Architect

Remote

- Deployed secure **Azure** architecture to migrate infrastructure from **AWS**.
- Onboarded CI/CD using pipelines and Azure DevOps, reducing application deployment time by **≈80%**.
- Developed a secure REST API using **Python**, **Azure SDK**, **Docker** and **PostgreSQL** for clients.

Orkestra Supply Chain Solutions

May 2020 – Aug. 2021

Software Engineer

Remote

- Connected 34 APIs of supply chain applications using **Python** to release 9 new business products.
- Supported the internal team and performed platform maintenance with an average turnaround time of **≈3 hours**, meeting SLA guidelines.
- Collaborated with the Project Manager to improve business practices, streamline the development timeline, and migrate to an agile methodology, e.g. directed **85** core team pull requests enhancing code quality.

University of Toronto Hyperloop Team (UTHT)

Jun. 2019 – Sept. 2021

Electronics Lead

Toronto, ON

- Developed a set of control system algorithms in **C++** for a Hyperloop pod to achieve autonomous navigation.
- Conducted sensor tests, verified specifications, and wrote documentation, which reduced downtime by **≈20%**.
- Led a new team of students *virtually* from researching to manufacturing amid the COVID-19 pandemic.
- Effectively utilized university resources to save **sales tax (13%)** on ordered equipment.

PROJECTS

Enigma Machine | C++

- Developed a CLI Enigma Machine, simulating the device from WWII, using the C++ STD library and object-oriented programming principles.

VEX Robotics Competition (VRC) Data Analysis Application | Java, Spring Boot, Maven

- Implemented a distributed version-control database without network access in Java to collect live competition data, improve productivity by 39% and assist in winning 8 straight Tournament Championships.

Pacman | Verilog, VGA

- Developed a Pacman game in Verilog with VGA graphics, modeled after the original release
- Optimized the design using pipelining to fulfill FPGA timing requirements.

Digital Keypad Lock

- Designed an Application Specific Digital Circuit (ASIC) using the **Proteus Design Suite**, ran functional simulations, and completed the hands-on PCB prototype bring-up.