Prarthona Paul

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EDUCATION

Bachelor of Applied Science in Computer Engineering + PEY Co-op
University of Toronto | 2020 - 2025 | GPA: 3.44

Relevant courses: Programming Fundamentals, Communication and Software Design, Digital systems, Computer Fundamentals, Computer Organization, Computer Architecture, Operating Systems, Data Structures and Algorithm, Databases, Introduction to Artificial Intelligence, Introduction to Machine Learning.

TECHNICAL SKILLS

Languages: Java, Python, C, C++, C#, Verilog, Visual Basic, HTML5, CSS3, ARM assembly, Prosgresql.
Tools and Software: OpenShift, IntelliJ, Visual Studio, VS Code, Unity, Codelite, NetBeans, IntelliJ, Git, GitHub, GitLab, Linux, MATLAB, Microsoft Suite, Gantt Project, MultiSim, Typhoon HIL, Quartus Prime, Figma, NVivo.

PROJECTS

Software Developer | *MAP Application Project*   Jan 2022 – April 2022
· Worked in a team of 3 to develop a large software like google maps using open street maps database and API.
· Utilized C++ STL and implemented data structures, such as vectors, hash tables and maps to optimize performance.
· Implemented Dijkstra's and A* algorithm and applied heuristics on it to solve Travelling Salesman Problem.
· Collaborated using GIT's version control and used AGILE project management methods to manage and distribute tasks, resulting in effective teamwork and communication.

Front-End Developer | *Design Competition: Google*   Jan 2021 - Mar 2021
· Collaborated in a team of 4 engineering students to develop a lost & found web application for Toronto.
· Designed and developed the user interface of the website using HTML, CSS, and JavaScript and conducted tests on it.
· Worked with the back-end team to implement the google maps API and lead reviews of code and website features.

Team Lead & Project Manager | *Engineering Strategies & Practice*   Sept 2020 – Apr 2021
· Lead 2 multidisciplinary teams of 6 engineering students to solve a design problem through technical analysis.
· Executed a scoped design project, applying communication skills to prepare well documented, and tested solutions translating client needs to requirements and specifications. Generated 50+ solution ideas and tested prototypes.
· Oversaw project management by communicating with the engineering manager and the client, leading 20+ meetings to present ideas and report progress. Created Gantt charts and assigned roles between team members.

WORK EXPERIENCE

Software Engineering Intern | *Red Hat Canada*   Toronto, ON | May 2023 – Aug 2024
· Worked with the WildFly-Elytron team to develop security features for WildFly and Red Hat JBoss EAP software.
· Developed new security features for the application platform, created documentation, guides, blogs and other community content for WildFly. Participated in open-source events by helping new contributors and reviewing code.

Senior First-Year Curriculum Analyst | *University of Toronto*   Toronto, ON | May 2022 – Jun 2024
· Conducted data analysis on large sets of student responses to identify themes in discipline decision-making.
· Wrote python scripts to organize, clean, sample and packet large sets of data for sentiment analysis.
· Presented an academic poster at the University of Toronto Undergraduate Engineering Research Day Conference.
· Conducted research and wrote two academic papers for the CEEA-ACEG conference on engineering education topics.

Teaching Assistant: APS100 | *University of Toronto*   Toronto, ON | Sept 2022 – Dec 2022
· Planned sessions and facilitated weekly tutorials for first-year engineering students on time management, study strategies, engineering ethics, academic integrity and other skills needed throughout the engineering career.
· Collaborated with the first-year office and the teaching staff to provide feedback and optimize course delivery.

Manager | *The Hard Hat Café*   Toronto, ON | May 2021 – May 2022
· Operated a student-run business on campus, overseeing employee schedules, daily operations by creating financial statements, placing orders and monitoring sales and revenue, leading a large team in a fast-paced environment.
· Managed finances for the cafe, handling monthly transactions of over $20,000 after a 1.5-year closure due to COVID.
· Hire, train, and lead a team of 14 employees and 4 executive members and collaborated with the team to improve outreach and customer relations introducing the cafe to over 1500 new students.

LEADERSHIP EXPERIENCE

Vice President Outreach | *Women in Science and Engineering (WISE)*   June 2024 - Present
· Lead a team of 15 members to organize events for younger female students interested in science and engineering.
· Collaborate with the other vice presidents and the presidents to gather funding, organize events for the team.

Director| *Hi-SKULE*   July 2021 – July 2024
· Lead a team of 30+ members and volunteers to organize events introducing engineering to younger students.
· Collaborated with the team to gather funding, recruit volunteers, and organize events for up to 250 participants.