Lavanya Mehndiratta

lavanya.mehndiratta@mail.utoronto.ca

EDUCATION

- BASc Computer Engineering - Final Year - University of Toronto (U of T) **Sep 2020 - Apr 2025**
  Minor: Artificial Intelligence Engineering
  Relevant Courses: Software Engineering, Machine Learning, Operating Systems, Data Structures and Algorithms

TECHNICAL SKILLS

- *Programming Languages:* C++, C, Python, Golang, Bash, JavaScript, TypeScript, HTML, CSS
- *Frameworks:* Flask, React, Jinja
- *Tools:* Linux, Github, Gerrit, Docker, Jenkins, Confluence, SharePoint Online, UI/UX Prototyping and Wireframing

WORK EXPERIENCE

Qualcomm, Markham (16-month Co-op) **May 2023 - Aug 2024**
Embedded Software Engineering Intern

- **Embedded Systems Development on Qualcomm Snapdragon SoC:**
  - Developed and optimized embedded software for Snapdragon, using Hexagon DirectLink for GPU and NPU enhancements.
  - Implemented and maintained code interfacing with Qualcomm Hexagon DSP and QuRT (Qualcomm Real-Time OS).
  - Engineered an AI-powered resolution enhancement extension using Qualcomm Neural Processing SDK.
- **Feature Development and Optimization:**
  - Developed unit and functional tests to ensure thread-safety and scalability, optimizing Hexagon DirectLink performance.
  - Managed end-to-end feature development: design, presentation, implementation, testing, and performance optimization.
  - Created and managed dynamic build scripts in Golang for Android system modules to streamline build processes.
- **Performance Improvements:**
  - Improved boot-up performance of a Hexagon extension by 60% through detailed analysis and optimization.
  - Developed an algorithm for memory usage analysis in Hexagon DirectLink application reducing memory overload by 30%.
- **Technical Documentation:**
  - Authored developer-focused documentation for Hexagon DirectLink extensions, integrated into the Qualcomm SDK.

IBM, Markham (4-month Internship) **May - Aug 2022**
Extreme Blue Technical Intern

- Developed a new software feature for IBM's conversational AI product, Watson Assistant, with the potential to increase the product's revenue by approximately 30%.
- Created a unique solution that improved the discoverability of traditional chatbot knowledge, resulting in a 40% increase in content consumption and a 25% reduction in search time, significantly enhancing user experience.

Deloitte, Toronto (4-month Internship) **May - Aug 2021**
Business Systems Analyst - Global Technology Services

- Worked on projects involving frontend software development, application design and implementation, architecture design, and technology assessments to support Deloitte global workplace collaboration tools.

Ontario Ministry of Government and Consumer Services, Toronto (3-month Internship) **Jun - Aug 2020**
Project Assistant - Infrastructure Technology Services

- Developed intranet websites, gamified training resources, conducted interactive polls and prepared accessible slide decks to help achieve Microsoft 365 Adoption and Change Management across various ministries of Ontario government.

KEY ACCOMPLISHMENTS

- Served as Vice President for two organizations - Women in Science and Engineering (WISE) and Machine Intelligence Student Team (UTMIST) at U of T (2021-2023).
- Designed and implemented interactive GIS software in C++ under Linux. Won 8th place in Algorithm Performance Competition against 100+ highly competent teams (2022).
- Developed a Financial Literacy web application using HTML, CSS, and JavaScript to prevent new immigrants from overspending. Won 2nd place in ElleHacks 2021 Contest sponsored by Bell Canada.