Hetav Pandya

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Education

University of Toronto - GPA: 3.97 — Toronto, CA
High Honors in Computer Engineering with Artificial Intelligence Minor — Sep 2019 - May 2024
Cumulative average: 92.5%, ranked #2 in UofT Engineering in 2019-20

Linear Algebra: 99/100 | Algorithms and DS: 89/100 | Operating Systems: 89/100 | Electronics: 99/100 | Intro. to Machine Learning: 95/100 | Computer Networks: 90/100 | Software Engineering: 90/100 | Databases: 95/100

Skills

Programming Languages:	Python, C++, C, R, Go, Kotlin, JavaScript, Perl, TCL, Bash
Machine Learning:	TensorFlow, PyTorch, AWS SageMaker, Ollama, Docker, Kubeflow
Data Analysis:	PostgreSQL, MongoDB, MySQL, Database Design, Power BI
Additional skills:	Flask, Git, GitHub, Perforce, Docker, ARM Assembly, FPGA, Linux

Work Experience

Dept. of Mathematics, University of Toronto — Toronto, CA
Teaching Assistant — September 2023 - April 2024
- Taught **Linear Algebra** and **Calculus** to engineering students at the University of Toronto.

Intel Corp. — Toronto, Canada
Software Engineering Intern — May 2022 - May 2023
- Developed a netlist writer in **C++** for Quartus Prime 2023 Q2 release.
- Implemented IP pin-mapping to reduce time taken to compile customer designs by 15%.
- Used profiling tools like **VTune and flamegraphs** to optimize code and identify bottlenecks.
- Worked with the router team to setup formal verification of our top model Agilex **FPGAs**.

Bell Enterprises — Toronto, Canada
Data Scientist Intern — May 2021 - Aug 2021
- Optimized **MySQL** data queries reducing the time taken by 60% on average.
- Developed an automated production deep learning pipeline in **Python and Kubeflow** to detect potential flaws in new version releases, reducing detection time from 3 weeks to 15 minutes.

General Motors (GM) — Toronto, Canada
Machine Learning Model Developer — May 2021 - July 2021
- Automated data collection and deployed a real-time **object detection model** with 0.93 mAP.

University of Toronto — Toronto, Canada
Data Analyst Research Intern - Faculty of Information — Jan 2021 - May 2021
- Published a report on 'Future of Skills, Jobs, and Policies for the Post COVID Digital Economy'.

Projects

Nash Equilibria convergence using RL *RLib, DQN, PPO, Python* · View Project
Worked with Prof. Lacra Pavel, to develop Reinforcement Learning algorithms that converge to Nash Equilibria in partial information networks like autonomous drone networks and smart power grids.

Open Hansard *Llama3, Ollama, Python* · View Project
An open-source initiative to summarize the debates of the canadian parliament using Llama3 LLM.

PEY Door *Claude LLM, AWS SageMaker, Web Dev* · View Project
A first-place winner in AWS Student Hack, it used a Claude LLM in AWS Sagemaker to answer student's internship related questions using official internship reports submitted by past UofT students.

Asphalt 9 Hands-Free Simulator *Python, OpenCV* · View Project
This project is about creating a gaming interface that allows the user to control and play games solely using hand gestures. A demo test was done on the game - Asphalt 9

E-Motion *Python, OpenCV, Selenium* · View Project
A computer vision suite that enables users to play games, read e-books and listen to music using hand gestures. It secured the second place at UofT Hacks VIII

Extra Curriculars

- Strategic and Technical Advisor @ UBC AI — May 2024 - Present
- GitHub Campus Expert @ UofT Engineering — September 2022 - May 2024
- Co-President at UofT Machine Intelligence Student Team — July 2021 - July 2022

Awards

- First Place at AWS Student Life Hacks — March 2024
- Third Place at Moral Code Hackathon — March 2022
- Winner of Microsoft Discover AI Challenge on AI Ethics — June 2021
- Second Place at UofT Hacks VIII — Feb 2021
- Edward S. Rogers Dept. of Computer Eng. Top Student Award — Sept 2020
- Second Place at UofT NSBE Hacks — Feb 2020
- University of Toronto International Scholar's Award Scholarship — May 2019