Ishpreet Nagi

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EDUCATION

McMaster University — Hamilton, ON
Bachelor's of Applied Science, Computer Science — *Sept 2021 — May 2026*

- Cumulative GPA: 3.7/4.0 | Dean's Honor List
- Relevant Coursework: Applications of Machine Learning, Data Structures, Algorithms, Databases, Discrete Mathematics, Operating Systems, Linear Algebra, Cryptography, Human-Computer Interfaces, Data Mining

WORK EXPERIENCE

Software Engineer and Research Coordinator — June 2024 — July 2025
Healthcare Systems Research & Analysis — *Waterloo, ON*

- Built, trained, and optimized various ML models with **Python**, **TensorFlow**, and **PyTorch** to analyze the presence of valuable minerals in geological datasets
- **Led a team of 4** in developing a data pipeline using **Pandas** and **NumPy** to preprocess and clean large geological datasets
- **Managed a team of 8** in the agile development processes including providing technical guidance to the team and updates to leadership

Machine Learning Analyst and Research Assistant — May 2023 — May 2025
McMaster University - Department of Computing and Software — *Hamilton, ON*

- Trained and enhanced various neural network models using **Python** and **MATLAB** for a variety of applications under supervision of Dr. Douglas Down
- Supported the development of a novel **LSTM** model, reducing variable intake and improving efficiency and speed by **30%**
- Conducted the hyper-parameter tuning of a complex Genetic Algorithm utilizing **Optuna**, improving effectiveness by **20%**

PROJECTS

Personal Website (ishpreetnagi.com) — July 2024 — Present

- Designed and developed a responsive and streamlined single-page portfolio site using **React**, **Astro**, and **Tailwind CSS**
- Implemented modern web design principles to ensure optimal user experience across devices, achieving a **95+ Lighthouse performance score**
- Integrated **Last.fm API** to display real-time listening activity from Spotify

Technical Executive, DeltaHacks 10 (github.com/deltahacks/landing-10) — Aug 2023 — May 2024

- Created the official DeltaHacks 10 website visited by **1000+ applicants** using **Astro**, **TypeScript**, and **Tailwind CSS**
- Enhanced user experience through dynamic content integration and responsive design, resulting in a **25% increase in user retention**
- Collaborated with a team of 8, utilizing **Git** and **GitHub** for version control and project management

McMaster Room Booking Portal (github.com/owengretzinger/room-booking-system) — Nov 2023 — Dec 2023

- Developed a prototype front-end interface with **TypeScript**, and **Tailwind CSS** for a web-based room booking portal, integrating various rooms spread across buildings on McMaster University campus
- Collaborated with a team of 4, using **Git** for version control and repository management on GitHub to streamline communication and workflow
- Built an interactive time booking tool, utilizing **Tailwind CSS** to promote structured web design elements, boosting **application ease-of-use by 20%**

SKILLS

- **Programming Languages**: Python, Java, JavaScript, TypeScript, C, HTML/CSS, Bash, SQL, Haskell, C++, C#
- **Tools & Platforms**: Git, VS Code, Eclipse, Jupyter, Unity, MATLAB, DBeaver, Vercel, LaTeX
- **Frameworks & Libraries**: React, Next.js, Astro, Tensorflow, PyTorch, Tailwind CSS, XGBoost, Optuna