

Jaskarn Dhillon

Software development | Research | Engineering

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I develop software, investigate research questions, and build systems that connect computation with the physical world. My work spans applied software development, machine learning, and instrumentation.

EDUCATION

MSc Computer Science, specialization in AI (thesis)

Sep 2026-Apr 2028
(expected)

Lakehead University

Graduate study in computer science with an AI thesis specialization.

Honours BSc Computer Science

Sep 2022-Apr 2026

Lakehead University

GPA: 4.0.

EXPERIENCE

Graduate Assistant

Sep 2026-present

Department of Computer Science, Lakehead University

Part-time graduate assistant appointment in the Department of Computer Science.

Research Associate (Software Development)

May-Aug 2026

Georgian College Research & Innovation

Continued software development research work following a student researcher appointment.

Student Researcher (Software Development)

Jan 2024-Apr 2026

Georgian College Research & Innovation

Led development of an ASP.NET MVC patient-intake application and collaborated on a cybersecurity assessment platform using ASP.NET MVC, Python, Auth0, and Azure.

SELECTED PROJECTS

Automated microscope and autofocus prototype

Ongoing

Developing an instrument combining motion control, electronics, imaging, and software. The Python autofocus workflow is simulation tested; physical calibration and validation are pending.

MusoMania

Jan-Apr 2025

Built a full-stack social platform with a five-person team for musicians to connect, collaborate, and share or sell their work. Next.js, React, PostgreSQL, and Tailwind CSS.

Predicting Alzheimer's diagnosis

Sep-Dec 2024

Evaluated six supervised learning models with feature selection and stratified sampling; a Random Forest model reached 94.6% accuracy and 0.95 AUC in the project study. Python, scikit-learn, and R.

QuickBite

Sep-Dec 2024

Developed a local food-delivery platform with dashboards for consumers, restaurants, drivers, and administrators, including distance-based restaurant discovery. ASP.NET MVC, PostgreSQL, and Tailwind CSS.

SDG Learning

Oct 2024

Built an interactive learning system for the UN Sustainable Development Goals at the 2024 NASA Space Apps Challenge; one of three pitch competition winners. Next.js, React, MongoDB, and Node.js.

SELECTED ACCOMPLISHMENTS

2024 NASA Space Apps Challenge pitch winner. SDG Learning was one of three winners of the pitch competition.

Machine learning project result. A Random Forest model reached 94.6% accuracy and 0.95 AUC in a course project on Alzheimer's diagnosis prediction.

TECHNICAL SKILLS

Languages: C++, C#, Java, Python, SQL, JavaScript, TypeScript, HTML, CSS

Frameworks: ASP.NET MVC, React, Next.js, Node.js, TensorFlow

Data & infrastructure: PostgreSQL, MongoDB, Redis, Azure, Docker

Tools & platforms: Git, GitHub, Auth0, New Relic, Bash/Linux, Hugging Face

Instrumentation: Arduino, GRBL, Stepper motors, Camera systems, OpenCV