

Karanveer Panesar

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EDUCATION

York University

Toronto, ON

Hons. Bachelor of Engineering – Computer Engineering

April 2028

Relevant Coursework: Object-Oriented Programming (Advanced), Embedded Systems, Computer Organization, Introduction to Logic for Computer Science

TECHNICAL SKILLS

Languages: Python, C++, C, JavaScript, TypeScript

Frameworks: React, React Native, Node.js, Flask

Tools: Git, Docker, Linux, VS Code, Android Studio, Expo

Concepts: REST APIs, Object-Oriented Programming, Systems Programming, Machine Learning Applications

PROJECTS

InternSheets | Python · scikit-learn · Gmail IMAP · Google Sheets API

- Developed an AI-powered email classification pipeline to process unread Gmail messages and automate job application tracking workflows
- Trained a **3-class** NLP model using TF-IDF and Logistic Regression on **10,000** labeled emails, achieving **99%** accuracy on a balanced synthetic evaluation set
- Integrated Gmail IMAP parsing, keyword-based row matching, and Google Sheets API updates to synchronize application statuses in real time
- Expanded the training dataset with confirmation, LinkedIn, and Indeed-style emails to improve separation between actionable updates and non-actionable notifications

INSPECTR | C++ · Windows API

- Engineered a Windows system inspection utility to collect CPU usage, memory utilization, and hardware metadata
- Measured ± 2.3 percentage-point mean CPU deviation and $< 1\%$ memory deviation relative to Task Manager
- Designed reproducible data collection workflows and exported structured **CSV/JSON** metrics
- Achieved **99% accurate** hardware identification through direct Windows API interrogation

VoiceMedic | React Native · Node.js · OpenAI API

- Developed a voice-activated first aid assistant that processes spoken emergency descriptions and generates AI-powered guidance
- Built a cross-platform mobile interface using React Native and Expo with integrated speech recognition
- Implemented backend request handling with Node.js and OpenAI APIs to deliver real-time emergency instructions

BrainUp | Python · Flask · React

- Built an AI-driven productivity recommendation platform that analyzes Instagram content to suggest learning activities
- Developed a full-stack architecture using ReactJS frontend and Flask backend
- Implemented ML pipelines using HDBSCAN clustering, MPNet embeddings, and Mistral models
- Awarded **1st Place – AI Track at Hack the Hill 2**

WORK EXPERIENCE

Facility Operations Attendant | City of Brampton

January 2025 - Present

- Maintained facility systems and equipment by performing operational checks, troubleshooting issues, and supporting safe, reliable day-to-day operations
- Conducted routine inspections to identify hazards, equipment faults, and maintenance needs, enabling timely corrective action and preventative upkeep
- Resolved operational issues in real time by assessing root causes, coordinating with staff, and supporting continuous facility functionality during high-traffic events

CERTIFICATIONS

Getting Started with Accelerated Computing in Modern CUDA C++, NVIDIA

2025

Getting Started with Deep Learning, NVIDIA

2025

Ubuntu Linux Professional Certificate, Canonical

2025

Microsoft Azure AI Essentials Professional Certificate, Microsoft

2025