Asher Khan

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EDUCATION

McMaster University

Sep. 2021 - Apr 2026

Bachelor of Engineering in Software Engineering - GPA: 3.9

Hamilton, ON

- Awarded the McMaster Engineering Award of Excellence for strong academic performance.
- Relevant Coursework: Data Structures & Algorithms, Databases, Probability and Statistics, Software Design

EXPERIENCE

Ericsson

September 2023 - August 2024

Ottawa, ON

 $5G\ Software\ Developer\ Intern$

- Contributed to the development of **EricChat**, an internal chatbot for handling company-wide user queries, improving efficiency by 91%. Implemented data scraping, tokenization, and fine-tuning of LLM models using **Hugging Face** and **NLTK**.
- Built **EDF Search Engine**, a search platform for **10,000+** employees, using ElasticSearch. Designed the full-stack application and automated data pipeline, deployed via **Docker** on Ericsson servers.
- Led project management for the EDF Search Engine, coordinating cross-functional teams, managing deadlines, and overseeing documentation.

Blue Guardian

May 2023 - August 2023

Machine Learning Engineer Intern

Remote, London, ON

- Optimized a **machine learning model** using **PyTorch** for tonality detection and emotional insight, improving mental health detection for early signs of depression and anxiety.
- Integrated **OpenAI Whisper API** for Speech-to-Text (STT) and Text-to-Speech (TTS) capabilities in the web application.

Projects

EthniVision | Tensorflow, Keras, Pandas, NumPy, Docker, React, Node.js, MongoDB

- Developed a multi-class classification **Neural Network** using **Residual Blocks** trained on the **FairFace** dataset, achieving **87**% gender, **72**% ethnicity, and **56**% age accuracy.
- Preprocessed 108,501 images with dlib Facial Recognition for face filtering, performed data exploration and feature engineering, then deployed the model via **Docker** and **TensorFlow** to a Node.js web app.

NFL Record Predictor | Sci-kit Learn, Pandas, Flask, SQLite

- Built a website for predicting NFL team records using **Decision Tree Regression** with **83%** accuracy and a **1.3**-win margin of error.
- Integrated statistics from web-scraped data and API sources, visualized results through Flask with an integrated SQLite backend.

Island Generator | Java, Maven, JUnit, ApacheCLI

- Created a Java-based island mesh generator using **SOLID** principles, deployed via **Command Line Interface**.
- Developed unit tests using **JUnit** and OOP, incorporating continuous integration practices.

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, Java, Bash, HTML, CSS

Libraries: Tensorflow, PyTorch, Sci-kit Learn, Keras, SciPy, Pandas, NumPy, Matplotlib Other Tools: Azure, MySQL, MongoDB, Docker, Django, React, Jira, Git, Linux, Jenkins