

Amey Dhamgunde

ameydhmagunde.ca | LinkedIn | GitHub

Markham, ON, CA

ameydhmagunde@gmail.com | +1 (647) 642-5991

EDUCATION

University of Toronto, St. George

Sept 2020 – Apr 2025

B.A.Sc in Engineering Science, Machine Intelligence + PEY

Toronto, ON

Related Courses: Algorithms & Data Structures, Operating Systems, Distributed Computing, Machine Learning & Neural Networks, Computer Vision, Natural Language Processing, Artificial Intelligence & Game Theory, Probability & Statistics

TECHNICAL SKILLS

Languages : Python, Javascript, Java, HTML/CSS, C/C++
Frameworks : TensorFlow, Keras, PyTorch, NumPy, SciPy, Scikit
Dev Tools : Visual Studio Code, IntelliJ IDEA, Jira, Jenkins, Git

EXPERIENCE

Software Engineering Intern, PEY

May 2023 – Aug 2024

Modern Campus

Toronto, ON

- Designed and implemented new features using **Java, Javascript, and JSP** in an agile software development cycle
- Impacted **millions** of LLEE users by investigating bugs and developing fixes and improvements on the support team
- Spearheaded the technical development of the DestinyOne to Lifelong Learning EE (LLEE) rebranding project
- Created, enhanced, optimized, and monitored **nightly automated QA** processes using **BDD and Serenity**
- Decreased query response times by **up to 70%** and reduced DB CPU load by improving inefficient SQL queries

Software Development Intern

June 2022 – Oct 2022

GE Renewable Energy

Markham, ON

- Automated the process of **updating technical documentation** from codebase changes and vice versa using **Python and C**
- Designed Python programs to **generate C code** from JSON spec data, used in **tens of thousands** of GE protection relays
- Wrote Python scripts to **automate** backwards compatibility and stress testing **software validation procedures**
- Implemented remote user interfaces for **long-distance data display** and control of 8-series relays

R&D Software Validation Intern

June 2021 – Sept 2021

GE Renewable Energy

Markham, ON

- Streamlined testing procedures by developing **Python and C#/Visual Basic** programs to automate device setup protocols
- Created monitoring panels to cohesively display live data from **50+ internal testing units** using proprietary software
- Developed new communications between devices on the Industrial Internet of Things (IIoT)

PROJECTS

Predicting Critical Deterioration for Hypotensive Events [Thesis]

PyTorch, AtriumDB

- Developed **intelligent alarms to combat alarm fatigue** by forecasting hypotensive events within a five-minute horizon
- Designed and trained machine learning models on **multi-source physiological waveform data** sourced from SickKids

Machine Learning for Sewer Deficiency Detection [Capstone]

PyTorch, NumPy, EasyOCR

- Trained a **CNN-based model** to recognize various sewer pipe defects in images sourced from Crozier and Sewer-ML
- Applied the trained model to Crozier's CCTV sewer footage using a **frame-by-frame inference approach**, producing a detailed plot visualizing the model's **predicted likelihood of defects** for each frame of the video's duration

Co:herent

Next.js, Co:here (ML) API

- Created Co:herent using Co:here's **NLP ML APIs** and **prompt engineering** to allow the hearing impaired to streamline their conversations with others by providing context-aware sentence suggestions
- Submitted to **Hack Western 9** [300+ competitors], winning **1st place overall** and an Organizers Choice Award

CNNs, RNNs and Transformers on Sentiment Analysis

PyTorch, TensorFlow, NumPy

- Compares the performance of **Convolutional** and **Recurrent Neural Networks** (CNNs and RNNs) against **transformer models** in a closed environment for a sentiment analysis task using the IMDb movie reviews dataset

AlgoFund

React.js, Algorand (Blockchain) API

- Built AlgoFund (a pun on "I'll go fund"), a **decentralized bounties platform** on the Algorand blockchain allowing anyone to attach a bounty to any GitHub issue
- Submitted to UWaterloo's **Hack the North 2019** [1500+ competitors], winning the **HtN Finalist** and Algorand API Prizes

Multi-Instrument Audio Source Separation

PyTorch, NumPy, MT3

- Separates an audio file into its constituent instruments by **implementing and fine-tuning** a pre-trained transformer model (MT3), trained on a synthetic dataset