

# MATTHEW FORGET | AI/ML ENGINEER

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[Github](#) • [LinkedIn](#) • [My Website \(Firefox\)](#)

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## SUMMARY

I am a computer science graduate with a strong interest in integrating AI into society. At York University I took courses in machine learning, pattern recognition, and artificial intelligence, covering topics like neural networks, VC dimensions, and PAC models. My experience includes developing LLM based mutation testing software using the OpenAI API and creating a heart failure predictor with machine learning algorithms

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## EDUCATION

York University- BA in Specialized Honours Computer Science (2020 - 2024)

TensorFlow Developer certificate from DeepLearning.AI through Coursera

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## SKILLS

Java - Python - JavaScript - C++ - HTML/CSS - SQL - React Native - Flutter - ML (Sklearn, Pandas, Seaborn, TensorFlow)

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## RELEVANT COURSES TAKEN

Machine Learning / Pattern Recognition - Advanced Data Structures - Artificial Intelligence - Capstone Project (LLM Based Research) - Intro to AI and Logic Programming - Distributed Systems - Software Design - Design and Analysis of Algorithms - Advanced Object Oriented Programming

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## PROJECTS

### LLM BASED MUTATION TESTER | [VISIT GITHUB](#)

- Conducted research and development on LLM based mutation testing using GPT 3.5 as the model
- Evaluated and analyzed mutation scores, compilable rate, and similarity rate of mutations generated by both Pitest and my LLM based mutation tester, comparing results
- Developed Python scripts to automate the LLM based mutation tester
- Results indicated that GPT 3.5 turbo is not as effective at generating mutations as Pitest

### PREDICTING HEART FAILURE IN PATIENTS | [VISIT GITHUB](#)

- Parsed data on medical patients (age, etc.) into training sections (80%) and test sections (20%)
- Used Jupyter Notebook to apply different machine learning models like logistic regression, KNN, and ensemble learning to predict the risk of heart failure in patients, with Seaborn to represent data, and AUC ROC to evaluate the models accuracy

### CHESS APP | [VISIT GITHUB](#)

- Created a fully functional chess app using Flutter for cross platform performance, using dart programming language. A pure java version also exists on my GitHub that I made using android studio to test
  - Currently adding AI functionality that will be a playable bot which learns to play like me
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## WORK EXPERIENCE

### Warehouse Associate - Fraser Direct

Jun 2023 - Jan 2024

- Narrow aisle reach truck driver. Replenished Stock with a RF scanner

### Container Unloader - ECM

May 2021 - Sep 2022

- Unloading containers by hand, building and wrapping skids

### Warehouse Associate - Hain Celestial

Sep 2019 - Dec 2020

- Narrow aisle reach truck driver. Order picker using RF scanner