# Connor-Francis McGrath

Github: https://github.com/GameDevConnor?tab=repositories

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Website: https://gamedevconnor.github.io/

# **EDUCATION**

York University

 $Bachelor\ of\ Science.\ Computer\ Science$ 

North York, ON

September 2019 - June 2024

# SKILLS

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

Frameworks/APIs: Angular, Spring Boot, REST APIs .NET, ASP.NET, Selenium, JSP, Servlets, Jersey

Tools: MySQL, PostgreSQL, IntelliJ, GIT, Android Studio, Microsoft Office, Eclipse IDE, Apache JMeter, Unity3D

Platforms: Linux, Windows, Mac OS

Soft Skills: Leadership, Writing, Public Speaking, Time Management, Collaboration, Communication, Scrum and Agile

# Work Experience

#### Junior Software Developer, Advantage Group International:

September 2024 - March 2025

- Refactored several REST APIs to increase efficiency in querying and editing rows of data using indexed database views. The changes reduced the load times for all operations by nearly 50%. Angular for the Frontend, Spring Boot for the Backend, PostgreSQL for Database.
- Created the front and REST API for a webpage to list and edit rows from the database. Angular for the Frontend,
  Spring Boot for the Backend, PostgreSQL for Database. These changes increased the efficiency for operations on those particular database views by approximately 66%.
- o Updated frontend webpages with Angular and REST APIs with Spring Boot to fix bugs and implement user stories.

# Systems Operator, Ministry of Transport:

June 2024 - September 2024

o Updated frontend webpages with Angular and backend REST APIs with Spring Boot and .NET for Ministry Websites.

# Software Developer Intern, TD Bank:

January 2023 - April 2023

- $\circ$  Coordinated and led the setup of an Apache HTTP proxy server to route traffic to TD's internal network with DevOps. Our team provided information such as IP addresses while DevOps handled development.
- $\circ~$  Translated ETL scripts into Java on the Customer Relationship Management team.

#### Software Quality Intern, TD Bank:

September 2022 - January 2023

- Ran load tests (peak, soak, and break tests) on web pages in order to make sure that they were performing at a certain number of transactions per second. Tests were run using LoadRunner and Apache JMeter in conjunction with an in house tool. Then, wrote reports on the performance of web pages for each iteration. These reports provided members of the development team with the necessary information for their subsequent versions of the web pages.
- Programmed scripts with Selenium to automate web page flow in order to make sure TD web pages were functioning.

## Events and Promotion Assistant, Lassonde School of Engineering:

May 2022 - September 2022

- o Provided administrative and logistical support for events and activities at York University.
- Researched, organized, and hosted several interviews with engineers in the community.
- $\circ\,$  Created promotional material for the university students.

# **PROJECTS**

# E-Commerce Project:

• An e-commerce website that runs on localhost Apache Tomcat Server 9. Built with HTML, CSS, JavaScript, AJAX, and JSP for the frontend. Java Servlets and Classes for the backend and business logic. MySQL for data persistence. Code available on Github under 4413Project. My role was implementing the backend as well as the SQL, additionally assisted with the front end AJAX.

## SwipeNotes:

• An Android app built with SDK 34 in Java with Android Studio. A note taking application that uses a SimpleOnGestureListenter to implement text formatting, bold and italicizing text, with on-screen gestures. Used Realm Database to save the notes. Code and user study available on Github. My role was implementing the frontend, note creation functionality, as well as the database.

# Canny Edge Detection Python Program:

o Individually implemented a Canny Edge Detection Program in Python using matplotlib, numpy, PyTorch, and kornia. Code available on Github

## **Building Blocks**:

 A first person shooter game in Unity3D that uses a state design pattern to control the character and implements physics based controls and gameplay. Enemy AI also uses a state design pattern, as well as Unity's NavMesh system.
 Programmed in C#. Code and demo video available on the Github. All programming was done individually.