# **Tyler Atkinson**

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### **EDUCATION** University of North Carolina Wilmington (2014 - 2018)

Bachelor of Science, Computer Science

Concentration: Systems

## **EXPERIENCE**

**Proficient in:** Java, C#, SQL, Python

Experience in: C/C++, JavaScript, CSS, HTML, PHP, Fortran, Prolog, Lua, SML, Android, Angular

## **Java** (Proficient)

## Markov Chains (CSC 415: Artificial Intelligence)

Implemented a Markov chain originally designed to generate words based on a dictionary. Further modified to access the Twitter API and generate tweets based on a given user's previous tweets. <a href="https://github.com/tha7556/Ai-Markov-Chains">https://github.com/tha7556/Ai-Markov-Chains</a>

# Neural Network with Backpropagation (CSC 415: Artificial Intelligence)

Implemented a neural network which learns through backpropagation. Originally, designed to learn logic tables. Worked on modifying, to perform image recognition. <a href="https://github.com/tha7556/Ai-Backpropagation">https://github.com/tha7556/Ai-Backpropagation</a>

#### **C#** (Proficient)

# Signal Processing (CSC 340: Scientific Computing)

Implemented tools to analyze, filter, and compare signals in both one and two dimensions. Utilized the Fast Fourier transform algorithm.

https://github.com/tha7556/Signal-Processing

#### PC Hawk Customs (CSC 450 and 455: Software Engineering and Databases)

Worked as a team with four classmates, creating an interface for selecting computer parts utilizing data from PCPartPicker for a fictional virtual company. For this project, I led the backend design: assembling the data, constructing the databases, and creating functions to interact with the databases. This program can only be run on UNCW campus to connect to the relevant server. Heavily utilized MySQL for this project.

https://github.com/tha7556/PC-Hawk-Customs

#### **C** (Intermediate)

## Exhaustive Search for Traveling Salesman (CSC 340: Scientific Computing)

Originally implemented this as part of a project for Scientific Computing to solve Traveling Salesman through Exhaustive Search, a Genetic Algorithm, and Simulated Annealing. The original project was done in Java, but the exhaustive search took about 2.5 hours for 14 cities (over 6 billion routes compared). My goal was to improve the runtime by using C, and I was able to get it down to 3.5 minutes.

https://github.com/tha7556/Traveling-Salesman-C

# **Employment History**

# Qualitest Group - Greensboro, NC - June 2018 - Current

Quality Assurance Engineer

Worked as a contractor, writing tests for REST and SOAP APIs. Utilized the Orasi Chameleon testing framework in Java.

#### Other employment

Tiger Rock Martial Arts as a Taekwondo Instructor, Legalis as a Document Scanner, and Regal Entertainment group as Floor Staff.