Kyle Hackett

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Education

Bachelor of Science in Computer Science

December 2022

University of Massachusetts Boston, Boston, MA

Overall GPA: 3.30 Relevant Courses

Programming in C, Advanced Data Structures and Algorithms,

Computer Architecture and Organization, Database Management, Mobile Applications

Technical Skills

Coding: C, Java, C#, SQL, Python. Intel 80186 32x Assembly, HTML, CSS, and Javascript

Software: Android Studio, Bootstrap, Unity, GDB, Valgrind, SQLite, Git

Platforms: Windows, Linux, Android, Oracle SQLPlus

Work Experience

Teaching Assistant for Intermediate Computing with Data Structures

University of Massachusetts Boston, Boston, MA

September 2021 - December 2021

- Facilitated weekly discussions with 30 students to further their understanding of class material.
- Provided one-on-one guidance to students to communicate new concepts and improve projects.
- Evaluated student projects giving constructive feedback to make their code more efficient.

Relevant Projects

Tutor Embedded System Project (C) - Computer Architecture and Organization

Fall 2021

- Applied memory architecture knowledge to build a system monitor/debugger.
- Accessed data using C code for little endian systems to alter stored hex values.
- Utilized GDB to debug code on a linux and a virtual machine embedded system looking for bugs and solving different errors.

GS Pokemon TeamBuilder Android App (Java) - Mobile Applications Term Project

Fall 2021

- Wrote code that parses a JSON file requested from PokeAPI and adds data to a SQLite table.
- Built a double ended queue to store Pokemon selected by the user and is displayed to the screen.
- Created filter options for the user, which displays the results of queries on the initial table.
- Adapted project from 2020 javascript web application which can be found at https://kylehackett99.github.io/PK-Teams/index.html.

Graph Manipulation (Java) - Advanced Data Structures and Algorithms

Summer 2021

- Created an adjacency matrix from a given two dimensional array of edges.
- Utilized the previously generated adjacency matrix to calculate number of components, cycles, and whether or not the graph is bipartite.

Autocomplete Me Project (Java) - Intermediate Computing with Data Structures

Spring 2021

- Built an unique implementation of binary search that uses a passed comparator to return the first or last index of a given search key.
- Generated an array of all strings that contain a given prefix from an array of terms using the previously created binary search algorithm.