Garrett Maitland

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Employment

Teacher's Assistant — **Eastern Michigan University** — **Fall 2018 – Summer 2019**

- Classes: Programming Languages; Computer Organization;
- Ran and tested student code; assisted and debugged during class labs; graded assignments and exams.

Graduate Assistant — **Eastern Michigan University** — **Fall 2019 – Winter 2020**

- Classes: Languages and Automata; Applied Programming and Scripting; Microprocessors; Applied Cryptography; Programming Languages; Computer Organization
- Worked as a tutor in the computer department's programming lab.

Education

Ypsilanti, MI — **Eastern Michigan University** — **Fall 2013 – Present**

- M.S. in Computer Science, January 2019 - Present. GPA: 3.7
- B.S. in Computer Science and Psychology, December 2018.
- Graduate Coursework: Operating Systems; Databases; Artificial Intelligence (AI); Machine Learning (ML) and Data Mining; Real Time Processing; Mobile App Development; Parallel Algorithms.
- Undergraduate Coursework: Data Structures and Algorithms; Computer Organization; Applied Cryptography; Computer Networks; Statistical Methods.

Projects

Java and SQL — **Chat Program** — **(WIP)**

- Designed a protocol for a client and server to communicate over Java Sockets.
- Implemented the server using multithreading and the Java concurrency library.
- Implemented a database using SQL and JDBC to store information on user profiles and chat rooms.

C — **LC-3 Simulator and Assembler** — **(WIP)**

- Implemented a simulator based on the computer designed by Yale Pratt and Sanjay Patel.
- Wrote an assembler with support for macros.

Java — **CheckersFX AI** — **Fall 2019 - Winter 2020**

- Led a team to create a checkers program and artificial intelligence to compete against classmates.
- Designed the user interface using JavaFX.
- Implemented an AI using the Minimax Algorithm.
- Ported to Android using the Android Development Kit and Model-View-Controller (MVC) architecture.

PIC Assembly Language — **Remote Control Robot** — **Fall 2019**

- Assembled and programmed a robot and remote controller that used PIC microcontrollers.
- Designed and implemented a protocol to send instructions to the robot using an infrared LED and receiver.
- Wrote PIC interrupt handlers to process incoming signals.

Languages and Technologies

- C++; C; Java; C#; SQL; Python
- Linux; Object-Oriented Programming (OOP); Sockets in Java and C; CUDA C; Git