CHRISTIAN SMITH

cesm@umich.edu | Allen Park, MI 48101 | 734-308-5175

EDUCATION

University of Michigan **Ann Arbor, MI**

M.S.E. in Computer Science December 2018

B.S.E. in Computer Science, Minor in Mathematics December 2017

- *GPA*: 4.00/4.00
- *Coursework*: Object-Oriented and Advanced Programming, Introduction to Operating Systems, Web Databases and Information Systems, Introduction to Computer Security, Database Management Systems, Data Structures and Algorithms
- *Awards*: Eta Kappa Nu EECS Honor Society, EECS Scholar Award, College of Engineering Dean's List

WORK EXPERIENCE

Allston Trading **Chicago, IL**

Software Developer Intern May 2017 – Jul. 2017

- Developed a high performance, real time, tick level charting library using OpenGL bindings for Java. The library is used daily by traders to view market data and is capable of rendering millions of points at framerates several times higher than the charting library it replaced.
- Wrote a limit order book server in C++ for testing internal trading applications. The server communicates with trading clients via the FIX protocol, and with a web client that can be used to manually accept, fill, etc. orders using WebSockets.
- Created a C++ server that exposes the functions and callbacks of an internal trading framework to clients via WebSockets.
- Built a web client using React and Redux to provide a GUI for the two C++ servers mentioned above. The client can display market data in real time and allows developers to test an internal trading framework using a GUI in a web browser.

University of Michigan – EECS Department **Ann Arbor, MI**

Instructional Aide for EECS 482 (Introduction to Operating Systems) Jan. 2017 – Present

- Lead weekly discussion sessions of approximately 30 students intended to review and clarify material from lectures.
- Hold regular office hours to assist students in exam preparation and completion of programming projects.
- Answer questions on an online course discussion board, where over 50 questions are posted per day new project deadlines.

University of Michigan – Climate and Space Sciences and Engineering Department **Ann Arbor, MI**

Web Development Intern Apr. 2016 – Dec. 2016

- Created a prototype for an educational browser game in which users attempt to reproduce a given wind pattern by repositioning air pressure points on a map.
- Designed and implemented the front-end of the game using web technologies such as React, Redux, and HTML5 canvas.
- Wrote and deployed a Node.js and MySQL back-end for the game which manages user accounts, scenarios for players to attempt to recreate, and high scores or each scenarios.

University of Michigan – Computer Aided Engineering Network **Ann Arbor, MI**

Hotline Consultant Feb. 2016 – Dec. 2016

- Created a web-based digital signage display to show upcoming hours of operation and service status using HTML, CSS, and JavaScript, and configured a Raspberry Pi to run the display in a web browser.
- Wrote a Chrome extension to automatically refresh the helpdesk's internal ticketing website, search the HTML document for new tickets, and push desktop notifications when new tickets are present.
- Assisted student and faculty users with computer labs, software, and user accounts by phone, email, live chat, and in person.

SKILLS

- *Languages*: C++, Python, Java, JavaScript, HTML, CSS, SQL
- *Technologies*: Git, Node.js, Express, React, Redux, ES6, JOGL, WebSockets
- *Operating Systems*: Windows, Linux