

# Thomas G. Hagen

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## Education

**Major: Bachelors of Science Computer Science | Minor: Mathematics | University of Idaho Moscow | May 2017**

**Related Coursework:** Game Development, Computer Graphics, Database Design, Survivable Systems and Networks, Data structures, System Software, Computer Architecture, Operating Systems, Programming Languages, Theory of Computation, Compiler Design, Analysis of Algorithms

## Technical Competencies

### **Proficient in:**

- C/C++/Arduino C
- Java
- Python
- Microsoft Office
- Microcontrollers/Embedded Systems

### **Knowledgeable in:**

- Linux OS
- Windows OS
- OS X
- Android OS Development

### **Familiar with:**

- HTML/CSS
- Eclipse IDE
- Android Studio IDE
- 3D Graphics Programming

## Projects

### **Senior Design Project: Flywheel Energy Storage System GUI**

**Spring 2016-Fall 2016**

- Designed and developed graphical user interface to control high-yield energy storage system as a team of four
- Collaborated with engineers from different disciplines to create best possible product
- Developed in C++ using the Qt framework
- Resulted in completely functional, professional-looking, easy to use interface

### **Game Development Project: Cyberwar 9001**

**Spring 2015**

- Developed Galaga-like game in Android Studio with LibGDX graphics library
- Game plays on both PC (arrow keys) and Android (accelerometer)

### **Personal Project: Club Card Day Application for Android**

**Winter Break 2014-2015**

- Solved the problem of unknowingly missing your membership day benefits
- XML used for user interface and Java used for Android API
- App handled network integration, system level interaction, and optimization to minimize hardware resources
- Completed and shared app with friends to test across a variety of devices

### **Directed Study: Quadcopter Tx/Rx Communication Protocol**

**Spring 2014**

- Worked with team of three to establish wireless network between Xbee shielded Arduinos
- Wrote code to translate C into Arduino C so the Arduino could send and receive data packets from a PC GUI
- Achieved accurate and reliable communication across all devices

## Work Experience

### **Computer Counselor | Kamp Kohut**

**Summer 2017**

- Taught Python and HTML/CSS to young adults enrolled in computer and web design classes
- Educated students in basic and advanced coding concepts as well as design principles

### **Professional Mover | Two Men and a Truck**

**Summer 2016**

- Exercised excellent verbal communication with customers of all different background and locations
- Efficiently loaded trucks to be full, yet safe for travel conditions and in accordance with DOT requirements

## Leadership/Extracurricular

### **Scholarship Chairman | Alpha Kappa Lambda Fraternity**

**Fall 2013**

- Oversaw and proctored study table for the freshman class and upperclassmen who had struggled academically the previous semester
- Tutored peers, collected and monitored grades, and handled incentive programs