# **Zachary Wachtel**

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**Objective:** Currently seeking a fulltime position in the software engineering field where my strong analytical and problem solving skills will be utilized.

## **Educational Background**

**University of Wisconsin-**Madison

B.S. Computer Engineering, Dec 2017

B.S. Computer Science, Dec 2017

- Minor in Mathematics
- Deans Honor List (3 Semesters)

#### **Academic Design Projects:**

#### **Micro-Controller Final Project**

Soldered components onto a microcontroller subsystem and programmed the system with firmware, written in C, utilizing a finite state machine with external interrupts.

#### **Related Coursework:**

Introduction to Data Structures (CS367), Digital System Fundamentals (CS352), Signals, Information, and Computation (ECE203), Machine Organization and Programming (ECE/CS354), Introduction to Algorithms (CS 577), Introduction to Operating Systems (CS 537)

#### **Engineering Experience**

Software Engineering Intern, May 2017- August 2017

Qualcomm, San Diego

Technical Intern, May 2016 - August 2016

Keen Home, New York City

- Lead role in testing and verification for IOT products
- Developed and deployed a Node.js command line tool which queried data from a NO-SQL database (elasticsearch) to run various CRUD operations.
- Developed a .NET application incorporating scanner SDKs and printer SDKs to allow for the company warehouse to easily print updated labels onto packaging.
- Active understanding of the company's full technology stack

Technical Intern, May 2014 - August 2014

SJ Associates, Jericho, NY

- Provided Technical assistance to employees
- Implemented and established a Barracuda SSL VPN network for forty employees
- Updated company's internal synching algorithm to become five times as efficient. (C#)

# **Independent Projects & Computer proficiencies**

**Applications:** Java, MATLAB, C, Linux OS, Intel x86 Assembly Code, ARM Assembly Code, PowerShell, Windows, Word, Excel, PowerPoint, HTML, CSS, Access, Android Platform, SQLite, Node.js, javascript, Objective-C, Xcode **Projects:** 

## **Raspberry Pi Smart Home**

Security camera: PIR sensor detects movement, Pi camera captures video, uploads to AWS s3 bucket, node script detects post and alerts user. (Python)(Node)(AWS)

Motion Sensor Lights: PIR sensor detects movement, sends alert to a bluetooth lightbulb to turn on.

# DraftKing's Lineup Optimizer

Command Line scripts which download and pull data from popular fantasy football sites. Parses csv information, and outputs an optimal line up for daily fantasy websites.

#### **GroupMe Bots**

Bots for Groupme deployed on Heroku. Bots actively search groupchats for certain keywords (ex. /weather). Bot responses by posting information received by accessing weather, stock, Giphy, sports, and Wolfram Alpha APIs. (Node.js)

## **Addition Experience**

# Owner, September 2013 - Present

College Coolers LLC, Madison, WI

Developed an e-commerce model for water cooler delivery company

Recruitment Chair, Fall 2014-Spring 2015 -Sigma Alpha Mu

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