## **Skills**

## **Full-stack Web Engineering**

- o HTML, CSS (Compass, LESS), jQuery
- o node.is, PHP (Yii, Zend)
- SQL (MySQL), NoSQL (MongoDB)
- Interface Design

### **Native Android Development**

### **Assorted Programming**

- C/C++, Python solid foundation in the feel, style, and uses of these and other languages
- Linux day-to-day use and comfort with top-level components (command line, scripting)
- o Git extensive use for many years

#### **Mathematics**

o 2013 Putnam Score: 10

# **Experience**

## MetabolismFun - Full-stack Web Engineering

- An online, educational game created to teach cellular metabolism at a university level.
- Worked with Dr. Neocles Leontis at BGSU to develop the game for his classes; I was responsible for programming, design, and deployment.
- Features a playable turn-based game forcing the player to learn metabolic pathways to maximize certain outputs, customizable settings, saved games, and a flat, smooth appearance.

#### Personal Robotics at CMU - Intern; Android Development

 Designed an Android application for in-house use on a humanoid robot that simplified normally difficult tasks such as adjusting motor position, displaying sensor output, or sending a direct command.

#### ■ Agile Oasis Technologies - Intern; General Web Development

 Worked on a variety of projects, generally designing and building the frontend for contracted websites.

### ■ Game of Life - Independent Project

- A simulation of Conway's Game of Life, developed in Java to run on a desktop computer.
- A game as much as a tool, the program allows users to work on an infinite grid, place predifined patterns, and watch cells evolve over time.

### Education

# Carnegie Mellon University

 Sophomore in the Mellon College of Science, majoring in Mathematics with a minor or possible double major in Computer Science.

# **■** Bowling Green State University

- Took many mathematics classes during high school at BGSU, including advanced Probability/Statistics and Master's level Analysis.
- Cumulative GPA: 4.0

## ■ Saint John's Jesuit High School

Graduated in 2013 as Valedictorian with a cumulative GPA of 4.8.

# **Dominic Zirbel**

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