## **Skills**

### • Full-stack Web Engineering

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

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 to develop the game for his class; I was responsible for programming, design, and hosting.
- Features a playable turn-based game forcing the player to learn metabolic pathways to maximize certain outputs, customizeable settings, saved games, and a flat, smooth appearance.

## Personal Robotics - 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

- I took many mathematics classes during high school at BGSU.
- o Cumulative GPA: 4.0

# • Saint Johns Jesuit High School

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

# **Dominic Zirbel**

dominiczirbel@gmail 412 204 7462

