# Skills

**Full-Stack Web Development**

HTML (Jade), CSS (Compass, LESS), jQuery
node.js, PHP (Yii/Yii2, Zend)
SQL (MySQL), NoSQL (MongoDB)
Interest and real-world experience in Interface Design

**General Programming**

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

**Mathematics**

Strong core, particularly in Graph Theory, Combinatorics, Linear Algebra, and Analysis
Analytical thinking and problem solving
Putnam Exam Scores: 2013 - 10 (~65th percentile), 2015 - TBA

# Experience

**MetabolismFun**
Full-Stack Web Engineering
July 2013 - Jan 2015

An online, turn-based educational game forcing the player to learn metabolic pathways in an engaging, interactive way to maximize their score. Features customizable settings, saved games, and a flat, smooth appearance.

Worked with Dr. Neocles Leontis at BGSU to develop the website to teach cellular metabolism in his classes and beyond. I was responsible for programming, design, and deployment.

**Agile Oasis Technologies**
Intern; Web Development
Summer 2013, 2015

Summer 2015: Developed social network site Project Qi. In addition to standard features (profile, friends, groups, pictures, status feed, etc.) the site aimed to connect users to non-profit organizations depending on the activity of their followers. I did backend programming in Yii2, frontend with Compass, Bootstrap, and jQuery, and worked closely with the client to create the experience he had in mind.

Summer 2013: Worked on a variety of projects, generally designing and building the frontend for contracted websites.

**Personal Robotics**
Intern; Android Development
Summer 2012

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.

**Game of Life**
Independent Project
2009 - 2013

A simulation of Conway's Game of Life developed in Java, with emphasis on a smooth and intuitive interface.

A tool as much as a game, the program allows users to work on an infinite grid, place predifined patterns, and watch cells evolve, with a powerful engine for fast simulation.

# Education

**Carnegie Mellon University**
Math Undergraduate
2013 - Current

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

Cumulative GPA (as of Jan 2016): 3.0

**Bowling Green State University**
Supplementary Classes
2009 - 2013

Math and Computer Science classes taken during high school, including senior-level Probability/Statistics and master's level Analysis

Cumulative GPA: 4.0

**Saint John's Jesuit**
High School
2009 - 2013

Graduated in 2013 as Valedictorian

Cumulative GPA: 4.8 on a 4-point scale


# Dominic Zirbel
dominiczirbel@gmail.com
412 204 7462