

## Skills

Full-Stack Web Development	HTML (Jade), CSS (Compass, LESS), JavaScript (jQuery) PHP (Yii/Yii2, Zend), node.js SQL (MySQL), NoSQL (MongoDB) Interest and real-world experience in Interface Design
General Programming	Native Android Development - practical experience, deep knowledge of the Java API C/C++, Python, Java - solid foundation in the style and uses of these languages Linux - day-to-day usage and comfort with top-level components (command line, scripting) Git - extensive use for many years
Mathematics	Strong academic core, particularly in Graph Theory, Combinatorics, Linear Algebra, and Analysis Analytical thinking and problem solving ■ <u>Putnam Exam</u> Scores: 2013 - 10 (~70th percentile), 2015 - 1 (~50th percentile)

## Experience

■ <u>Imagine Systems Technology</u> Intern; Android Development Summer 2016	Developed a monitoring and control tablet app to display data from a manufacturing process in order to fine tune the procedure. Gathered live data via Bluetooth; tracked averages, regressions, and errors; displayed a powerful realtime graph; and kept logs of past runs. I used the native Android SDK in Java and my focus was on creating an app capable of handling large amounts of generic data, and finding useful ways to present it to the team.
■ <u>MetabolismFun</u> 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. I worked with <u>Dr. Neocles Leontis</u> at BGSU to develop the website to teach cellular metabolism in his classes and beyond. I was responsible for programming, design, and deployment and used Yii2, jQuery, and MySQL.
■ <u>Agile Oasis Technologies</u> Intern; Web Development Summer 2013, 2015	Summer 2015: Developed social network site <u>Project Qi</u> . In addition to standard features (profile, friends, groups, pictures, status feed) the site aimed to connect users to non-profit organizations. I used Yii2, MySQL, Bootstrap, and jQuery and worked closely with the client to create the experience he had in mind. Summer 2013: Designed and built the frontend for a variety of contracted websites.
■ <u>Personal Robotics</u> Intern; Android Development Summer 2012	Designed an Android application for in-house use on a humanoid robot that provided a simple interface for normally difficult tasks such as adjusting motor position, displaying sensor output, or sending a direct command.
■ <u>Game of Life</u> 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 predefined patterns, and watch cells evolve, with a powerful engine for fast simulation.

## Education

■ <u>Carnegie Mellon University</u> 2013 - Current	Junior in the Mellon College of Science, double majoring in Mathematics and Computer Science Cumulative GPA (as of Aug 2016): 3.1
■ <u>Bowling Green State University</u> 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
■ <u>Saint John's Jesuit</u> 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

