DOMINIC ZIRBEL

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SKILLS

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

Assorted Programming
- C/C++, Python - 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

Mathematics
- Strong core, particularly in Graph Theory, Combinatorics, Linear Algebra, and Analysis
- 2013 ▣ Putnam Score: 10; 2015 ▣ Putnam Score: TBA

EXPERIENCE

▣ MetabolismFun - Full-Stack Web Engineering
- An online, educational game created to teach cellular metabolism at a university level in an engaging, interactive way.
- Worked with Dr. Neocles Leontis at BGSU to develop the game for his classes and beyond; 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.

▣ Agile Oasis Technologies - Intern; General Web Development
- Summer 2015: Developed social network site Project Qi under the supervision of Nick Pfundstein. 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 and frontend with Compass, Bootstrap, and jQuery as well as working 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 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.

▣ 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, with a powerful engine for fast simulation.

EDUCATION

▣ Carnegie Mellon University
- Sophomore in the Mellon College of Science, majoring in Mathematics with a minor or possible double major in Computer Science.
- Cumulative GPA (as of Jan. 2016): 3.0

▣ 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.