## 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  ${\hbox{C/C++, Python - solid foundation in the feel, style, and uses of these and similar languages}}\\$ 

 $\label{linux-day-to-day} Linux-day-to-day\ use\ and\ comfort\ with\ top-level\ components\ (command\ line,\ scripting)$ 

Git - extensive use for many years

Experience in Native Android Development

Mathematics

 $Strong\ core, particularly\ in\ Graph\ Theory,\ Combinatorics,\ Linear\ Algebra,\ and\ Analysis$ 

Analytical thinking and problem solving

■ Putnam Exam: 2013 - 10, 2015 - TBA

## **EXPERIENCE**

■ MetabolismFun

Full-Stack Web

July 2013 - Jan 2015

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 with customizable settings, saved games, and a flat, smooth appearance.

■ Agile Oasis Technologies

Intern; Web Development Summer 2013, 2015 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

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

A simulation of Conway's Game of Life, developed in Java.

Independent Project 2009 - 2013 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 Sophomore in the Mellon College of Science, majoring in Mathematics with a minor or double major in Computer Science

Math Undergraduate 2013 - Current

Cumulative GPA (as of Jan. 2016): 3.0

■ Bowling Green State University Supplementary mathem classes during high school, including advanced Probability/Statistics and Master's level Analysis

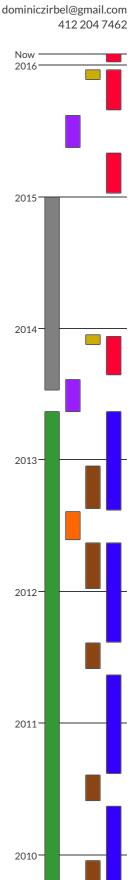
Supplementary Classes 2009 - 2013

Cumulative GPA: 4.0

■ Saint John's Jesuit

Graduated in 2013 as Valedictorian

High School 2009 - 2013 Cumulative GPA: 4.8



DOMINIC ZIRBEL