Charles DiGiovanna

469 French Ave. North Babylon, NY 11703 • (631) 901-6772 • cdigiov1@binghamton.edu • www.charlied.me

Objective:

Seeking to gain substantive field experience through a technical job or internship.

Education:

Binghamton University, State University of New York
The Thomas J. Watson School of Engineering, Harpur College
Bachelor of Science in Computer Science, Expected May 2017
Bachelor of Arts in Mathematical Sciences, Expected May 2017
GPA: 3.71; Dean's List Fall 2013, Spring 2014

North Babylon High School, North Babylon, NY
Advanced Regents Diploma, June 2013
GPA: 4.0; Top 5% of Class; AP Scholar with Distinction

Technical Skills:

Programming Languages: Python, C, Java, HTML, CSS, JavaScript, PHP, MATLAB
Programs: Git, MATLAB, Mathematica, Microsoft Excel, Minitab, Solid Edge, Xilinx ISE

Projects:

Independent Projects

Tkinter Ventures – November 2014 *See the code at:* ***www.github.com/cd17822/Tkinter-Ventures***

- A collection of games designed with object-oriented programming in Python and graphics via Tkinter
- *2048 AI*: Designed a replica of "2048"; Added a heuristic artificial intelligence with multiple simulation mode
- *Bonkers*: Original game; User deflects a ball into a goal; User-created levels, scores saved using File I/O
- *Palindromica*: Original game; User finds palindromes in a stream of digits; Elegant UI and instruction screen

NeighborhoodFor.me – November 2014

- Worked with 3 team members to design a service for citizens to become more involved in the community
- Text messages could be sent from organizations so that those without internet access could stay connected
- Set up communication between the site and a Mongo database via JavaScript and organized the database

Binghamton University

Wearable Power – April 2014

- Designed a hypothetical wearable power source that would generate electricity from ambient energy
- Utilized SolidEdge to create a model of our device with intricate detail and precise measurements
- Compiled a 50+ page engineering report with 7 teammates to sell our idea while honing collaboration skills

Arduino Speedometer – October 2013

- Applied my knowledge of circuitry to create and improve upon an Arduino-based speedometer design
- Utilized the Arduino IDE to code the intended processes and upload the design to an Arduino logic board
- Presented the team's fully-functional final project at a university-wide engineering exposition

Technical Experience:

Computer Architecture Research Lab, Research Assistant – September 2014-Present

- Imported and experimented with the gem5 simulator system on my machine
- Gathered simulations of the ALPHA, ARM, and x86 architectures to run benchmarks and simulation scripts
- Created scripts and binaries to test on the ALPHA and ARM architectures to begin developing a benchmark

Community Involvement:

BU Pipe Dream, *Web Developer* *December 2014-Present*
HackBU, *Member* *October 2014-Present*
Computer Architecture Research Lab, *Research Assistant* *September 2014-Present*
Dickinson Residential Community, *Student Mentor* *August 2014-Present*
Binghamton University Club Volleyball*, Member* *August 2013-Present*
Good Samaritan Hospital, West Islip NY, *Junior Volunteer* *February 2009- January 2013*