

# Charles DiGiovanna

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## **Objective:**

Seeking to gain substantive field experience as a student associate with Madison Square Garden.

## **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](https://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 Solid Edge to create a CAD 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 onto an Arduino logic board
- Presented the team's fully-functional final project at a university-wide engineering exposition

## **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, Active 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, Active Member**

*August 2013-Present*

**Good Samaritan Hospital, West Islip NY, Junior Volunteer**

*February 2009- January 2013*