

Sarah Hrubetz  
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## Education

Clarion University of Pennsylvania, Clarion, PA  
Bachelor of Science, August 2014-May 2018

### Dual Majors: Mathematics and Computer Science

Minor: Honors

GPA: 3.2

Courses Include Statistics, Numerical Methods, Software Engineering, and Object Oriented Programming  
Point Park University, August 2012-Spring 2014 • Completed 24 credits while in high school Awards  
Dean's List: Summers of 2013 and 2014, Fall 2014 and Spring 2015

## Work Experience

Technical Consultant, Nextec Group, Robinson, PA August 2018-Present

- Modified Sage X3 using 4GL language
- Communicate with clients to meet their requirements
- Individually studied language used for Sage X3

Lab Assistant, Clarion University, Clarion, PA, Fall 2015 – Spring 2018

- Assist students with technology issues on laptops, printers, hardware, and Microsoft Office
- Serve as a homework assistant for coding assignments

## Computer Skills

- Proficient in C#, Java(OOP), MS SQL Server, Python, HTML, JavaScript, CSS, C++, MATLAB, Mathematica, and Arena
- Familiar with Assembly Language and Visual C Projects

### • Computer Science Final Project

A local business needed to bring their admissions process from paper to computer. Our clients were executives and not IT Professionals. To do this myself and a team of peers worked together to create a C# application to assist in the transition from paper to digital formatting and simultaneously create a database using SQL Server in order to store their information. I was responsible for writing and debugging the SQL Statements and functionality of the application. There was also a presentation in front of our peers, professor, and client.

o Result: A multiform application organized by client's preference with a large local database.

### • Honors Android Development Project

o Independently developed an Android application to assist with studying using flashcards. I used SQLite to store local information. I had to self-teach Android application development through examples books, and occasional help from my professor. A brief presentation was given in front of an audience with no computer background.

o Result: An application with basic create read update delete (CRUD) functionality and notifications of information stored in database.

### • Robotics

o The robot had to follow a maze and pick up an object to bring back to a starting point. I had to research how to use Python to control an EV3DEV robot autonomously. I also instructed two under classmates how it worked and cooperated with peers to find an efficient algorithm.

o Result: Our team came in third place.

- **Software Engineering with Framework**

- o I was required to work as a team to complete a list of requirements. We were given a framework in C# and had to make alterations to. We followed the Software development life cycle to complete this project.
- o Result: We succeeded to meet all of the requirements.

- **Object Oriented Programming**

- o Worked with another student to develop version of the game Frogger. We used Java and object oriented programming. We had to use threading and graphics.

- **Mathematics Senior Seminar**

- o Developed method to generate common fractals in MATLAB. Independently studied matrices, Random Iteration Algorithm, and properties of fractals (such as area). I then gave a speech to mathematics undergrad students and the professors.
- o Result: I generated multiple fractals and wrote a paper on my research

## **Presentations**

- **Clarion University Math Circles**

- o Spoke in front of peers, Professors, and community members
- o Presented various mathematical games and used game theory to solve them

- **Able Leadership Conference**

- o Presented in front of about 20 peers
- o Explained time management techniques based on research

## **Campus Involvement:**

### **Math Club, Fall 2014-Spring 2018**

- Treasurer Fall 2017-Spring 2018 - Budget the finances for the organization
- President, Fall 2015-Spring 2017
- Work as part of a team to organize events to advertise for the club, including speakers, pi day, etc
- Research and orchestrate club trips to mathematics conferences
- Collaborate with other science organizations to maximize event participation

### **Clarion University Association for Information Technology Professionals Spring 2017-Spring 2018**

- Public Relations Chair - Advertise the organization to other students around campus
- Algorithms Competition Alternative - Problem solve as a team to prepare for a competition
- Python Speech
- Present in front of a classroom of peers about basic python. My lecture included loops, methods, if statements and variables.

### **Student Senate, Spring 2015-Spring 2016 • Facilities Committee Chair, Fall – 2015 – Spring 2016**

- Conducted student surveys that inquired about their opinions of Clarion University's facilities
- Organized a presentation with committee members to present to CU's Faculty Facilities Committee

## **Community Involvement:**

Clarion University High School Mathematics Competition, Fall 2015, 2016, 2017, Run for a Reason 5K, Spring 2015, Movers and Groovers, Fall 2016, Commencement Usher Spring 2015, Fall 2015, Spring 2016, Honors Senior Presentation Usher Fall 2015