

# Rebecca Luo

1762 Clifton Rd. MSC 181238 Atlanta, GA 30322 || 225.505.3252

Email: [rlo24@emory.edu](mailto:rlo24@emory.edu) || LinkedIn: [www.linkedin.com/in/rebecca-luo](https://www.linkedin.com/in/rebecca-luo) || GitHub: <https://github.com/rlo24>

## EDUCATION

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### Emory University || (Atlanta, GA)

Spring 2022

Major: Computer Science and Economics || Cumulative GPA: 3.76 /4.00

### Baton Rouge Magnet High School || (Baton Rouge, LA)

Spring 2018

Cumulative GPA: 4.00/4.00 || National Honor Society, Mu Alpha Theta Chapter President and Louisiana State Corresponding Secretary

## SKILLS

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Proficient in Java, Python, CSS, and HTML; Basic proficiency in C and JavaScript

Familiar with operating in a Linux and Windows system

Fluent in Mandarin, English, and Latin (translation)

## WORK EXPERIENCE

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### Emory Research Partners Program || (Atlanta, GA)

Fall 2019 – Present

*Undergraduate Researcher Fellow at the Saikawa Lab*

- Working to deploy air quality data in real-time to people within the Emory community through an informative website
- Research in progress concerning the health correlations with air-quality fluctuations in the Atlanta area

### National Science Foundation Research Program at Southern University || (Baton Rouge, LA)

Summer 2019

*Consortium for Innovation in Manufacturing and Materials Undergraduate Researcher*

- Designed and analyzed a refractory alloy ReMoNbTaV utilizing the SSOS method using the VASP package and MedeA software
- Worked with graduate and undergraduate students from various universities to analyze prospective graphene types for immobilizing bacteria on carbon electrodes using a work function Fortran program
- Used the Louisiana Optical Network Infrastructure and the Nano supercomputer for data transfer and calculations
- Participated in community outreach activities and was invited to speak to middle/high school students interested in engineering/computer science to encourage underrepresented minorities' participation in the STEM field
- Presented final findings with a poster in front of all involved faculty and at the LSU Summer Research Forum with over 300 attendees

## PROJECTS

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### Emory Internet Crawler

Spring 2019

- Utilized Java and HTML to create a search engine that retrieves a set number of relevant pages related to a user-provided query
- Used jsoup for accessing and manipulating web pages, particularly extracting links
- The search engine displays the collected pages ordered by relevance, in this case number of query word appearances in a page

### Self-Organizing Datasets

Spring 2019

- Created Java program which self-organizes the data inputted by user to form a visual pattern utilizing physics concepts
- Data can be read from a file and is itself a simple programming language which eventually displays a pattern designed with the concept of connected nodes

### Personal Webpage

Summer 2019

- Used HTML, CSS, and JavaScript to develop a personal website which displays my art portfolios and connect to my other social media sites; project is constantly in progress as I advance my skills in web design
- Link to webpage: <https://rebeccaluo.info/>

## LEADERSHIP / COMMUNITY INVOLVEMENT

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### ProgramHers

Spring 2019 – Present

*Vice-President*

- Strategized advertising methods to publicize the newly founded women-in-tech organization at Emory
- Organized professional and community development events within the female CS population of over 100 students
- Coordinated the application process for Emory's Grace Hopper Conference Scholarships with the CS faculty and fellow board members

### Girls Who Code

Fall 2018 – Present

*Vice-President and Academic Instructor*

- Communicated with all parents and volunteers (about 100) through emails concerning club events weekly
- Equipped around 40 middle and high school girls with technical skills to encourage female participation in technological fields
- Created lesson plans on Python, CSS, JavaScript, and HTML with Emory volunteers to aid the girls to complete impact projects

## RELEVANT COURSEWORK

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Intro to Computer Science I & II || Current: Data Structures and Algorithms, Foundations of Computer Science, Intermediate Microeconomics