Rebecca Luo

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EDUCATION

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 Secretary

SKILLS

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

WORK EXPERIENCE

Emory Research Partners Program || (Atlanta, GA) **Fall 2019 – Present**
Undergraduate Researcher
- Research in progress

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 (The alloy showed high potentials for industrial use due to its high thermal stability, strength, and ductility)
- 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 (LONI) 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

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

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 Instructor
- Communicated with all parents and volunteers (about 100) through emails concerning club events weekly
- Equipped around 30 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

Intro to Computer Science I & II, Foundations of Computer Science, Computer Architecture/Machine Level Programming, Intermediate Microeconomics, Principles of Macroeconomics