SOPHIA CHEN

Applied Math I Computer Science I Design

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Education

2017-2021 **Brown University**, Rhode Island
Applied Math-Computer Science
GPA: 4.0

Relevant Courseswork:
Accelerated Intro to Computer Science
Discrete Structures and Probability
Crossing the Chasm with Design
Honors Multivariable Calculus
Linear Algebra

2013-2017 **Fairview High School**, Colorado
Summa Cum Laude, IB Diploma
GPA: 4.9/5.0

Skills

Languages

Java
Scala
HTML/CSS
Racket
C++

Computational Tools

R
Matlab

Design

Adobe Photoshop
Adobe Illustrator
LaTex

Memberships and Honors

NCWIT Aspirations in Computing Award Recipient

Award given to young women who have demonstrated achievement and passion in computing and technology.

Brown STEAM - cyberSTEAM and citySTEAM

Club that promotes the intersection of STEM and art.
citySTEAM explores networks of information]
cyberSTEAM focuses on applications of computer science in data visualization,music, etc.

Experience

May 2018 - Aug 2018 **Software Engineering Intern**
Ruby on Rails I HTML/CSS I Javascript NCAR - EOL

Worked on improving CHORDS portal, a real-time data service platform for data acquisition, analysis, and distribution.

Aug 2015 - Aug 2017 **Engineering & Data Science Intern**
R I Matlab NCAR - CISL

Designed statistical models and tools used to research relationships in the Earth sciences.

Optimized statistical analysis of geophysical data using high performance parallel computing.

Designed web apps for displaying atmospheric data.

Aug 2015 - May 2016 **Assistant Teacher**
Python Summit Middle School

Instructed students learning basic to intermediate Python programming skills and strategies.

July 2015 **Data Analytics Bootcamp**
R NCAR

Attended, and later, coached a camp to learn about big data analysis through real world applications.

Topics included spatial cluster analysis of atoms in solar cells and parallel computing using NCAR's supercomputer.

Sample Projects and Publications

Guizilla

Built interactive GUI browser with HTML pages using Java, implementing both the client-side and server-side through sockets, reflection, JavaFX events, and XML file parsing.

Search

Built interactive search engine in Java that responded to user text queries and returned most relevant documents using the PageRank algorithm and term frequency.

Accelerating Data Analysis with Parallel Computing

Published technote on optimizing statistical analysis in R of large climate datasets with parallel computing on NCAR's supercomputer.

Ozone Concentration and Foliar Injury Analysis

Published technote on determining and modeling a correlation between ozone concentration and visible foliar injury from ozone.