

SOPHIA CHEN

Applied Math | Computer Science | Design

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Education

2017-2021

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

Relevant Coursework:

Accelerated Intro to CS Discrete Structures & Probability Crossing the Chasm with Design Honors Multivariable Calculus Linear Algebra Principles of Economics

Fall 2018:

UI/UX
Intro to Systems
Statistical Inference
Applied Ordinary Diff Eq

2013-2017

Fairview High School, Colorado
Summa Cum Laude, IB Diploma
GPA: 4.9/5.0



Skills

Languages:

Java
Scala
HTML/CSS
Racket
Ruby on Rails
Javascript
Python

Design Tools:

Adobe Photoshop
Adobe Illustrator
LaTeX

Computational Tools:

R
Matlab



Sample Projects

Guizilla

Built interactive GUI browser in Java implementing client and server side with sockets, reflection, JavaFX events, and XML file parsing.

Search

Built interactive search engine in Java that takes user text queries and returns most relevant documents using the PageRank algorithm

Accelerating 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 modeling a correlation between ozone concentration and visible foliar injury from ozone.



Experience

May 2018 - Aug 2018

Ruby/Rails | JS | HTML/CSS | InfluxDB

Software Engineering

Intern NCAR - EOL

Worked on production of CHORDS portal, a real-time data service platform for data acquisition, analysis, and distribution. Designed REST API endpoints for JSON/GeoJSON data extraction.

Created visualization tools that aid in instrument monitoring and data processing.

Enhanced portal's performance for high volumes of data and users.

Aug 2015 - Aug 2017

Engineering & Data Science Intern

R | 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

Python

Assistant Teacher

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



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 Political Review - Data Associate

Work to create infographics, data driven articles, interactive data apps for Brown's main political magazine.

Brown STEAM - cyberSTEAM

Club that promotes the intersection of STEM and art. cyberSTEAM focuses on applications of computer science in data visualization, music, and engineering.