SOPHIA CHEN

Applied Math | Computer Science | Design

schen9981@gmail.com
(303) 513-7016
linkedin.com/in/sophiachen9981
schen9981.github.io
github.com/schen9981
medium.com/@sophia_chen1

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 — **Software Engineering Intern**, NCAR - EOL
Ruby/Rails I JS I HTML/CSS I InfluxDB

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**, NCAR - CISL
R I Matlab

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**, Summit Middle School
Python

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

July 2015 — **Data Analytics Bootcamp**, NCAR
R

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.