

Jonathan Sheng

js165@rice.edu | (917)-435-1689

Houston, TX 77005

Github: JSheng1689 | LinkedIn: .../in/jonathan-sheng

Education

RICE UNIVERSITY, Houston, TX

Expected: May 2023

- B.S. in Computer Science with a Minor in Data Science
- Related Coursework: Algorithmic Thinking, Computational Thinking, Multivariable Calculus, Fundamentals of Computer Engineering

JERICHO SENIOR HIGH SCHOOL, Jericho, NY

June 2019

- GPA: 4.17/4.0 (Weighted) | SAT w/ Essay: 1590, 23
- U.S. Presidential Scholars Program Candidate
- National Merit Commended Scholar
- National AP Scholar and National AP Scholar with Distinction

Skills

- Computer: Python, HTML, CSS, JavaScript, Java, Git, R, MathML, XML
- Languages: French (Speaking and Writing Proficiency)

Relevant Experience and Projects

CONTENT DEVELOPMENT INTERN, OPENSTAX CNX, Houston, TX

November 2019–Present

- Assisted content managers with content production including:
 - Content manipulation, errata revisions, regression testing, etc
- Assisted content management with editorial and technical tasks across all OpenStax products
- Used ZenHub API to integrate information into our Slack, reporting clearer issue/event data

RESEARCH ASSISTANT, RICE UNIVERSITY, Houston, TX

May 2020–Present

- Assessing the performance of current CNA (cancerous acquired mutations) detection methods
- Working with a team of undergraduates under the guidance of Prof. Luay Nakleh

CAPITAL ONE SWE SUMMIT, Richmond, VA

May 2020

- “A small, exceptional group of freshmen and sophomores will be immersed in our startup-minded culture... taking part in technical and soft-skill training sessions... including iOS, Android, Web Development, AWS, Bot Development, Hardware, Machine Learning and more.”

SMOKY MOUNTAIN DATA CHALLENGE, BP HPC, Houston, TX

June 2020–Present

- Working on a month-long project that uses machine learning to create a model that constructs a subsurface uncertainty map
- Link to challenge: <https://smc-datachallenge.ornl.gov/challenges-2020/challenge-5-2020/>

CONNECTION GAME AI

- Implemented connection games, such as Tic Tac Toe and Connect Four, where I trained the opposing bot using:
 - Minimax algorithm, optimized using Alpha Beta Pruning
 - Reinforced learning, using value iteration over every game state

BLACKJACK SIMULATOR

- Developed simulator to play Blackjack card game against computer dealer, using HTML, CSS, JS

Extracurricular Activities and Leadership

HANZSEN WEB MASTER

- Design and maintain Hanszen's Website, designed with Bootstrap and built with Jekyll

RICE DATA SCIENCE CLUB TREASURER

- Mentor undergraduates in data analysis workshops, i.e. Covid-19 analysis, Introduction to Pandas
- Manage funding and sponsorships for events, such as Rice's Datathon, Networking, Alumni Talks, etc.