

# Jonathan Sheng

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## 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

### WEB DEVELOPER, BLACKBIRD MEDIA, Jericho, NY

*November 2015–April 2019*

- Developed website for social media agency run by fellow high school students
- Collaborated with a team to create a startup company
- Primarily focused on front-end design

### 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.”

### TIC TAC TOE AI

- Implemented game of Tic Tac Toe, 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.