# Lucas Chen

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# **EDUCATION**

## Rice University

Houston, TX

Bachelor of Science in Computer Science, Bachelor of Arts in Mathematics

CPA 10/10 P. 11 11 P. 11

Expected May 2025

• GPA: 4.0/4.0, President's Honor Roll

## Relevant Completed Coursework:

Computational Thinking, Probability and Statistics, Reasoning about Algorithm, Honors Calculus, Intro to Mathematical Cryptography, Matrix Analysis for Data Science, Algorithmic Thinking, Honors Linear Algebra, Fundamentals of Parallel Programming, Complex Analysis

## Relevant Ongoing Coursework:

Probabilistic Algorithms and Data Structures, Introduction to Analysis, Concurrent Program Design

#### TECHNICAL SKILLS

Programming Languages: Python, Java, C, C#, Go, JavaScript, HTML/CSS

Software and Tools: PyTorch, GitHub, ReactJS, Unity

## EXPERIENCE

# Undergraduate Research Assistant

May 2023 - Present

Rice University D2K Lab

 Working with graduate researchers at the Rice Data to Knowledge Lab with research and development involving time series prediction and anomaly detection using transformers, recurrent neural networks, and other neural network architecture

# Computer Science Teaching Assistant

September 2023 - Present

Rice University

• Holding office hours and grading exams and assignments for the course COMP 382: Reasoning about Algorithms

# Rice Datathon January 2022

Rice University's Annual Data Science Competition

• Developed a Python program using NumPy and Pandas that would produce potential redistricting of the Houston area based on census data; awarded Best Houston/TX Trends and First Place in the Respective Track

#### Mathematics Teaching Assistant

June 2022 - August 2022

AwesomeMath Summer Program

Collaborated with an instructor to teach high-level competition mathematics virtually to high school students

### Projects

# Game Boy Emulator

• Implemented a SM83 processor emulator to create an emulator for the DMG-01 Nintendo Game Boy in C

# Ray Tracing

• Developed a ray tracing program in C for rendering 3D scenes with shadows, reflections, and anti-aliasing

# Community & Leadership

#### Volunteer Instructor

2017 - 2021

A-Sharp Learning Center

• Taught math and computer science courses to elementary through high school students, both in person (pre-covid) and online (post-covid)

# Honors

# Mathematical Olympiad

2019 - 2021

USA Mathematical Olympiad (USAMO) three-time Qualifier, top 250; AIME Score 13, USAMO Score 21

# Computing Olympiad

2019 - 2021

USA Computing Olympiad Gold Division

#### Physics Olympiad

2018 - 2021

USA Physics Olympiad (USAPhO) three-time Qualifier