





Xinze Feng

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EDUCATION

Rice University

Houston, TX

Intended B.S. in Computer Science and Mathematics

Aug 2022 - May 2026

Coursework

- Honor Calculus III/IV, Honor Linear Algebra, Algorithmic Thinking, Reasoning about Algorithms, Fundamentals of Computer Engineering, Probability and Statistics, Introduction to Program Design

Activities/Affiliations

- Engineering Leadership Coaching Team (Rice Center for Engineering Leadership), ICPC Competitive Programming Club, Math Directed Reading Program, Doerr Institute Student Leadership Program

EXPERIENCE

OptimaLab | Undergraduate Research Assistant

Apr 2023 - Present

- Conducted research in quantum optimization and machine learning under the supervision of Dr. Anastasios Kyrillidis; specifically investigated potential hybrids of quantum and classical optimization algorithms
- Focused on approximating solutions for Max-Cut problem by utilizing Warm-Start QAOA (Quantum Approximate Optimization Algorithm)

HackRice 13 | Back-End Developer

Sep 2023

- Developed Hexagon, a cutting-edge Carbon Index Fund Recommendation Engine devised for companies seeking to meet their carbon credit quotas by reducing risk and minimizing cost
- Programmed Mixed Integer Program based on users' preferences and constraints; utilized GUROBI, the optimization engine, to produce an optimized solution for our model
- Won SLB Challenge: Best Project that Addresses Climate Change and MathWorks Challenge: Best Use of MATLAB; placed second in Chevron Challenge: Carbon Capture

Rice ELITE Tech Summer Camp | Live Instructor

May 2023 - Aug 2023

- Designed and taught two courses for 500+ high schoolers: "C++ Programming in Rocket Science" and "Internet of Things: Machine Learning"
- Devised C++ beginner guide and advanced aerodynamic physics problems; utilized SciKitLearn Python library to collect real-time weather data and predict future weather through machine learning.

Rice Center for Engineering Leadership | Teaching Assistant/Coach

Jan 2023 - May 2023

- Evaluated 25+ students' leadership development and coached them 1 on 1 in 8 leadership labs throughout the semester

IEC Fusor Team | Fusor Designer

Sep 2021 - May 2022

- Designed and implemented an Inertial Electrostatic Confinement Fusor from scratch for science fair; funded by \$2000 school scholarship
- Used Fusion 360 CAD software to design flanges for the fusor's chamber; found feasible high-voltage power supply by applying neon-sign transformer

SKILLS

Programming Languages: Python, C/C++, Java

Tools: Git/GitHub, VS Code, IntelliJ IDEA, Unix Shell

Libraries/Frameworks: Pandas, Pytorch, PennyLane, Numpy

HONORS/AWARDS

United States of America Mathematical Olympiad (USAMO)

2021

- Qualifier

American Mathematics Competitions 12 (AMC12)

2021

- Scored 141/150; qualified for Distinguished Honor Roll (top 1% globally)

American Invitational Mathematics Examination (AIME)

2021

- Scored 10/15 (top 10% globally)

American Regions Mathematics League Local (ARML)

2020

- Achieved first place team across China (National Golden Team Award); 28th team globally; individually scored in top 100 across the nation

Berkeley Math Tournament (BMT)

2020

- Scored in top 100 individuals in Algebra and Geometry rounds
- Team achieved 4th place internationally in power round