Albert Shi Zhu

✉ albert.shi.zhu@gmail.com ☎ (+1) 713-478-0444 ⌨ bakekaga in albert-s-zhu

Education

Rice University   **Houston, TX**
Intended B.S. in Computer Science, Mathematics; Minor in Sociology; 4.0/4.0 GPA   May 2025
- **Coursework** ([†] graduate-level): Algorithmic Thinking, Stochastic Models, Introduction to Program Design, Intro to Machine Learning[†], Reasoning about Algorithms, Probability and Statistics, Fundamentals of Computer Engineering, Honors Linear Algebra, Honors Calculus III/IV.
- **Activities**: Math Directed Reading Program, ICPC Club, Table Tennis Club (competitive team member).

Experience

RiceApps   **Houston, TX**
Software Engineer Intern (Open Source Accelerator Program)   May 2023–Aug 2023
- Participated in 4-week web/app development bootcamp. Covered React for frontend; MongoDB, Express, and GraphQL for backend.
- Helped develop Owl Mart, a marketplace web app for Rice students to buy and sell items, as a member of a 9-person team. Implemented landing/home pages using Material UI tools and React.

OptimaLab   **Houston, TX**
Undergraduate Researcher   May 2023–Aug 2023
- Conducted research in machine learning under supervision of Dr. Tasos Kyrillidis of Rice University; specifically investigated novel methods of solving large-scale linear systems distributively.
- Ran experiments in Jupyter Notebook varying number of local workers, local/global iteration count, as well as testing different step-size schemes.

HackRice   **Houston, TX**
Board Member   Apr 2023–Sep 2023
- Designed tracks and workshops for Rice University's annual 36-hour hackathon with 400+ participants.
- Utilized Python's asynchronous framework and Discord's bot development API to write starter code for first-timers.

Jane Street Capital   **New York, NY**
First-Year Trading and Technology Program Participant   Mar 2023
- One of 94 invitees to annual freshman education program. Learned about finance concepts and participated in market simulation games.
- Achieved first place in Electronic Trading Competition, in which our team's Python bot achieved the highest PnL of the field across 60+ simulated market rounds.

AlphaStar Academy   **Santa Clara, CA**
Math Competitions Instructor   Jun 2022–Aug 2022
- Taught 60+ total students advanced topics in algebra, combinatorics, geometry, and number theory.
- Prepared educational materials (video solutions, interactive activities, lecture notes) for future camps.

Competitive Programming Initiative   **Remote**
Curriculum Developer, Video Instructor   Jun 2021–May 2022
- Recorded and edited 12 videos for self-study competitive programming courses using Adobe Premiere Pro.
- Wrote problem editorials in C++ and Java; eventually adapted into USACO Guide, a compilation of USA Computing Olympiad resources with over 7 million page views.

Skills

Proficient: Python (Pandas, NumPy, Scikit-Learn, Jupyter Notebook), LaTeX, Git/Terminal
Intermediate: C/C++, HTML, CSS, React, Java, Adobe InDesign, Adobe Premiere Pro
Novice: Express, MongoDB, GraphQL, Adobe PhotoShop

Awards

Rice Datathon, Best Visualization Award	Feb 2023
3x AIME Qualifier	Mar 2019, 2021, 2022
Hewlett-Packard CodeWars Competition, 3rd Place, Advanced Division	Mar 2020