

# Alex Zhang

Stanford University

Computer Science, Aero/Astronautics

[alxzhang@stanford.edu](mailto:alxzhang@stanford.edu) | (901) 457-9968 | [www.linkedin.com/in/alxzhang](http://www.linkedin.com/in/alxzhang)

## TECHNICAL SKILLS

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Languages **C; Java; Python3; LaTeX;**

Technical Tools **Microsoft Suite; Google Suite; Weebly;**

## EDUCATION

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### Stanford University

B.S. Candidate, Aeronautics and Astronautics,

*2021–2025 (expected)*

M.S. Candidate, Computer Science

- Audited and completed **CS107: Computer Organization and Systems (in C)** during the summer before freshman year.
- Completed coursework in **MATH51: Linear Algebra, Multivariable Calculus, CS 109: Introduction to Probability for Computer Scientists (in Python)**

## PROFESSIONAL EXPERIENCE

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### Memphis Junior Science Association (<https://memphisjrscience.org>)

Co-director, Founder

*September 2019–*

- Oversee curriculum development, finances, and logistics of **3 outreach programs** and events reaching **3400+ individuals through 450+ hours of community service**.
- Organized partnerships with the **YMCA of the Mid South, Collierville & Memphis Public Libraries, the US Space and Rocket Center**, and numerous children's museums.
- Managing Youtube channel with 8000+ views and 350+ hours of watch time.
- Designed website with over 16,000 lifetime page views.

### PIXEL (supervised by IBM, MiBio)

*January 2016–May 2017*

Lead Programmer

- In collaboration with a former CTO of IBM and a local medical startup, I worked on designing and partially implementing an **AI-based desktop application using a committee of machines (in Java)** to identify and extract critical information in medical documents.

## VOLUNTEER WORK / ACADEMIC CLUBS

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- Stanford Student Space Initiative
- Stanford Solar Car Project
- Stanford Association for Computing Machinery
- Stanford Blyth Fund
- CHS Science Olympiad
- CHS Science Bowl

*3-year Captain, Regional Champion Team*

*2-year Captain, State Champion Team*

## SELECTED PROJECTS

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**(C) Explicit-free-list Heap Allocator:** Implemented `malloc()`, `realloc()`, `free()` heap management functions in C from scratch with optimization techniques including coalescing of free blocks and first-fit searching to achieve 93% utilization.