Andrew Zhao

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Education

Carnegie Mellon University
B.S. in Electrical & Computer Engineering   May 2024
Dean's List (4.0 QPA)

Experience

CMU 15-112 Fundamentals of Computer Science
Teaching Assistant   Fall 2021
- Introduce core CS principles in a hands-on manner to students with varying degrees of STEM experience
- Lead recitations and labs, host office hours, teach review sessions, grade assignments, tutor 1-on-1

NASA Jet Propulsion Laboratory
Backend Web Development Intern   Summer 2021
- Improved reliability and security of services by enabling canary deployments and replacing external DNS routes with internal API requests
- Proved out and tested features of the Istio framework for integration into JPL's Kubernetes applications

Laerdal Medical
Product Development Intern   Winter 2020
- Designed and programmed a web-based cardiac auscultation simulator as part of a modern, low-cost medical training ecosystem to replace simulators 50x more costly
- Prototyped with web audio frameworks to modify and accurately play high fidelity sounds

Activities

CMU Undergraduate Entrepreneurship Association
Board Member, Growth Team   November 2020
- Create media and hold campus events to promote student interest in emerging startups and areas in tech

CMU Engineering Student Council   September 2021
- Coordinate event registration and swag distribution logistics for department-wide CIT Day event

FIRST Robotics Team 9866
Team Captain, Co-Founder   2015 - 2020
- Lead team to compete at world championships, networked with sponsors to raise $15,000
- Received Dean's List Finalist award in recognition of outstanding leadership and dedication
- Created and mentored 4 teams of 40+ students, providing guidance in technical and management skills

Projects

Beat Slicer   November 2020
- An intuitive and original computer vision rhythm game, featuring Python OpenCV motion tracking, a 3D engine written from scratch, 3D geometric slicing via a convex hull algorithm, and a fluid user experience
- Voted 1st place out of 450+ student projects

Awards

- 15-112 Fall '20 Term Project: 1st Place
- Hack-112 Hackathon: 2nd Place Project
- FIRST FTC Maryland Champion Alliance
- FIRST Dean's List Finalist
- SIEMENS Competition Regional Finalist

Skills

- Python, C, Java, JavaScript, HTML/CSS
- Docker, Kubernetes
- Solidworks, Autodesk Inventor, 3D Printing
- Adobe Illustrator, Photoshop