

Alex Ren

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EDUCATION

Johns Hopkins University

Bachelor of Science in Mechanical Engineering, Minor in Mathematics

Baltimore, MD

Expected May 2024

- GPA: 3.98/4.0, Dean's List – Fall 2020, Fall 2021
- Relevant Coursework: Statics & Mechanics of Materials, Mechanics Based Design, Design & CAD, Electronics & Instrumentation

Foothill High School

High School Diploma

Pleasanton, CA

May 2020

- GPA: 4.4/4.0
- Awards and Honors: AP Scholar with Distinction, National Merit Finalist

COURSE PROJECTS

MechE Freshman Lab II Design Project, Johns Hopkins University, Department of Mechanical Engineering

May 2021

- Built a set of active dioramas portraying scenes in an original story using Arduino components
- Created a journal containing design ideas and drawings
- Worked with group of four to develop story and ideas for each scene

MechE Freshman Lab I Design Project, Johns Hopkins University, Department of Mechanical Engineering

Dec 2020

- Designed and constructed device to catch, transport, and release an egg two inches vertically and six inches horizontally without an external power source
- Created hand drawings and prototypes of device
- Collaborated in group of three to develop set of devices that worked together consecutively

WORK EXPERIENCE

Research Assistant

Nov 2021 – Present

Fluid Transport Lab at Johns Hopkins University

Baltimore, MD

- Design and construct structures using 80/20 for experiments on particle-bubble interaction
- Assist graduate researcher in experimental setup and data collection for particle-bubble interactions

ACTIVITIES

Propulsion Subsystem Engineer

Sep 2020 – Present

AstroJays Rocketry Team at Johns Hopkins University

Baltimore, MD

- Build CAD models of structures and components such as valves and ox-tank structure in SolidWorks
- Design and machine support structures for valves and tubing for ox-tank structure

Varsity Team Student-Athlete

Sep 2020 – Present

Men's Varsity Swim Team at Johns Hopkins University

Baltimore, MD

- Commit over 20 hours per week to training and competitions while balancing academics

Engineering Subgroup Member

Sep 2017 – Aug 2020

Promoting Leadership in Aspiring Youth Foundation

Pleasanton, CA

- Led subgroup as president for one year and treasurer for one year
- Organized and led hands-on engineering camps for kids
- Introduced new projects such as bridge building to engage kids in engineering

Club Swimmer

Sep 2010 – Aug 2020

Pleasanton Seahawks Swim Team

Pleasanton, CA

- Competed as part of Pleasanton Seahawks Junior National Team
- Three-time USA Swimming Scholastic All-American

SKILLS

- Technical: SolidWorks, MATLAB, Microsoft Excel, Python
- Languages: Mandarin