

Alan Xue

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EDUCATION

Northwestern University, Evanston, IL

Bachelor of Science in Mechanical Engineering

Expected Graduation: June 2021

Master of Science in Computer Science

Expected Graduation: June 2022

GPA: 3.64/4.00, Dean's List (Fall 2017, Winter 2017)

SKILLS

Software: C/C++, Linux/Unix, Solidworks, Microsoft Office, HTML, CSS, JavaScript, LaTeX, Fusion 360

Language: Fluent in English, Cantonese and Mandarin; Proficient in Spanish

RESEARCH EXPERIENCE

SOLID OXIDE FUEL CELL LAB

May 2019 – Present

Research Engineer Assistant

- Tasked with independently leading the lab work and co-authored a manuscript for fuel cells
- Fabricated fuel cells through ink preparation, pellet polishing, screen printing, and sintering
- Used an electron microscope to inspect the layer of an electrode at 10^6 times magnification
- Analyzed the conductivity of fuel cells under different operating temperatures (300 °C - 900 °C) through collecting impedance data

GENETICS LAB

September 2018 – June 2019

Research Assistant

- Used computer-interfaced equipment, and imaging software to examine stained cells
- Managed of over 1000 different Drosophila stocks for future use in experiments
- Coordinated biweekly meetings through arranging proper meeting times with group members and provided updates on work progress to the professor

LEADERSHIP EXPERIENCE

WHITE SPACE DEVELOPMENT CHALLENGE

December 2019 – Present

Team Member

- Committed over 20+ hours of research and analysis toward addressing the problem of air quality in East Asia

GOOGLE DEVELOPER STUDENT CLUB

September 2019 – Present

Technical Team Member

- Collaborated with the technical team to develop an app toward improving student community social connections using Flutter

ACADEMIC SUPPORT AND LEARNING ADVANCEMENT

September 2018 – September 2019

Peer Tutor

- Developed mentoring skills through leading student study groups and reinforcing concepts from lecture
- Reviewed class material with students by discussing text and working solutions to problems in lab reports
- Met with supervisor and other peer tutors to refine mentoring techniques and provided insight toward achieving a high-quality experience for students

IVY GARDEN LEARNING CENTER

September 2015 – September 2017

Lead Tutor

- Mentored classrooms upwards of 20 students in math and literature from grade levels K to 7th
- Retained student enrollment into CPS gifted programs at 50%
- Troubleshooted computers and provided technical support on computer-related issues to students

PROJECTS

WEB DEVELOPMENT

- Integrated HTML5, CSS and JavaScript to design my developing website

COMPUTER PROGRAMMING AND DESIGN COURSE

- Coordinated meetings and led the development of the games Space Invaders and Flappy Bird

HUMAN-CENTERED PRODUCT DESIGN

- Conducted outdoor surveys and patent research toward identifying a white space
- Designed, manufactured and assembled the new design of a can opener using Solidworks for modeling