**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*

1. Tasked with independently leading the lab work and co-authored a manuscript for fuel cells
2. Fabricated fuel cells through ink preparation, pellet polishing, screen printing, and sintering
3. Used an electron microscope to inspect the layer of an electrode at 106 times magnification
4. Analyzed the conductivity of fuel cells under different operating temperatures (300 ºC - 900 ºC) through collecting impedance data

**genetics lab** *September 2018 – June 2019*

*Research Assistant*

1. Used computer-interfaced equipment, and imaging software to examine stained cells
2. Managed of over 1000 different Drosophila stocks for future use in experiments
3. 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*

1. 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*

1. Developed mentoring skills through leading student study groups and reinforcing concepts from lecture
2. Reviewed class material with students by discussing text and working solutions to problems in lab reports
3. 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