

Jeff Cui

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2301 Vanderbilt Place
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EDUCATION

Vanderbilt University

Major: Mechanical Engineering
Minors: Materials Science, Chinese Language and Culture
GPA: 3.85/4.00

Nashville, TN
Anticipated Graduation Date: May 2021

PROFESSIONAL EXPERIENCE

Vanderbilt University Department of Engineering

Undergraduate Researcher under Dr. Alvin Strauss

Nashville, TN
September 2018—Present

- Developed a novel method to friction stir weld aluminum and steel sheet in a mechanical-metallurgical joint.
- Optimized parameters to additively manufacture thermite paste for 3D reactive material architectures.

Machining Teaching Assistant

Nashville, TN
September 2019—Present

- Educated peers in the use of machining equipment to construct a metal fabrication hammer.
- Designed and implemented new safety features for Machine shop lathes, vertical mills, and plasma cutter.

Viacert

Market Research Intern

Shanghai, China
June 2018—August 2018

- Researched expanding company services to include Canadian Registration Number certification assistance.
- Investigated the feasibility of obtaining U.S. Energy Star certification for commercial boilers.

LEADERSHIP AND VOLUNTEERING

Vanderbilt University Running Club

President

Nashville, TN
May 2019—Present

- Delegated tasks and planned training schedules for a club sport with over 50 members.
- Managed logistics, and coordinated with Vanderbilt administration and competition officials for four races annually.

Murray House Fellowship

Events Planner

Nashville, TN
August 2018—September 2019

- Coordinated between fellowship members and the Susan Gray School staff to host outreach and volunteering events.
- Lead weekly arts and crafts activities for preschool age children.

RELEVANT PROJECTS

Instrumentation Lab Final Project

January 2019—May 2019

- Created a LabVIEW virtual instrument, and built complementary hardware, that responded to input sound and collected frequency data to determine an association between song frequency and song genre.

Intro to Mechanical Engineering Design

August 2018—December 2018

- Used PTC Creo to design and mechanically model a chair to assist the elderly in standing up.
- Conducted a force analysis, and drafted necessary technical drawings and bill of materials to produce the chair.

West High School Rocket Club

September 2017—August 2017

- Designed and produced a model rocket and launch system that earned 2nd place in the NASA MAV challenge.

SKILLS AND INTERESTS

Technical Skills: CAD (PTC Creo), 3D Printing (Hyrel 3D, Makerbot), Matlab, LabVIEW, Machining, Plasma cutting, Chinese, Microsoft Office, LaTeX

Extracurriculars: Theta Tau (Professional Engineering Fraternity), Phi Gamma Delta (Social Fraternity)