

# MOEZ ULLAH KHAN

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## EDUCATION

University of Oklahoma

Norman, OK

Bachelor of Science in Mechanical Engineering | Minor in Computer Science | GPA: 3.70

May 2024

**Relevant Coursework:** Solid Mechanics, Fluid Mechanics, Statics, Thermodynamics, Heat Transfer, Design of Mechanical Components, Circuits, Design, and Manufacturing Processes, Introduction to Java, Programming Structures and Abstractions

## SKILLS AND CERTIFICATIONS

**Skills:** SolidWorks, Python, Java, HTML, CSS, JavaScript

**Technologies:** SolidWorks, Blender, Arduino, LabView, NI Multisim, Visual Studio Code, GitHub

## WORK EXPERIENCE

School of Aerospace and Mechanical Engineering, University of Oklahoma

Norman, OK

Research Assistant, Dr. Jie Cai / HVAC System, In-Duct Phase Change Material-Based Energy Storage Jan 2022 – May 2022

- Improved the experimental setup to pack PCM in small vacuum packets to increase energy storage by 20%
- Redesigned the equipment needed in the research to reduce the experiment time by more than 40%

Library Services, University of Oklahoma

Norman, OK

3D Workflow Student Specialist

Aug 2022 – Present

- Engineered 4 3D printers from scratch by assembling the mechanical and electrical components of the printer together
- Generated 3D scans of real-life objects using Photogrammetry and produced 3D models using the software Solidworks

## PROJECTS

Suspension Model of a Four-Wheel Drive Vehicle

[View Project](#)

- Designed a fully functional suspension system for the front wheel of a four-wheel drive vehicle using Solidworks software
- Built 123 mechanical parts for the suspension and assembled the parts together to model the final prototype

Real-Time Simulation

[View Project](#)

- Programmed a simulation of Snell's Law using C Programming Language. Implemented functionality to allow users to see an incident, reflected and a refracted ray, and two mediums for the beams to travel
- Incorporated feature to allow users to vary the angle of incidence and the refractive index of both mediums in real-time

Discuss Website

[View Project](#)

- Coded a website called "Discuss" using HTML, CSS, and JavaScript. Users can view multiple pages and read the uploaded posts.
- Implemented the functionality to change the theme of the website between light and dark modes.

Bounce Game

[View Project](#)

- Spearheaded a group of 2 developers to create a "Ball Bounce Game", on KISS IDE using C Programming Language
- Programmed functionality to allow users to manipulate a horizontal bar to hit a ball as many times as possible to gain points

Power Generating Electric Skateboard

[View Project](#)

- Coordinated with 3 students to create a 3D model for a skateboard that can convert the Kinetic Energy of the board to electricity and store the energy in a battery. The stored energy can be used to power the skateboard or external electric appliances

## LEADERSHIP AND PARTICIPATION

Computer Science Student Board

Norman, OK

Executive-Chair

May 2021 – Present

- Communicated with multiple organizations to gather volunteers for the club's first-ever mock interview session
- Collaborated with a team of 9 students to coordinate event logistics and promote the event

Freshman Engineering Showcase

Norman, OK

Modeling Lead

May 2021

- Supervised a group of 7 people to design and assemble a mechanical arm that works on hydraulic system
- Modeled and printed a mechanical arm using Solidworks and received special recognition for the fully functional model

## AWARDS

- Patti Wilson Scholarship: \$8000 awarded on academic achievements, leadership experiences, and career goals May 2022
- Rita Scholarship: \$1,500 awarded for leadership activities and community service May 2022