

# KHIZR MAQSOOD

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## EDUCATION

**Northwestern University**, Evanston, IL

June 2022

Bachelor of Science in **Manufacturing and Design Engineering**

Cumulative GPA: **3.61/4.00**

Relevant Coursework by 2021: Design for Manufacturing, Industrial Design, Advanced SolidWorks, Computer Integrated Manufacturing

## SKILLS & INTERESTS

**Software & Skills:** SolidWorks, NX, KeyShot, Design for Manufacturing/Assembly, Lean Design, Photoshop, MATLAB, Microsoft Office

**Languages:** Fluent in English, Urdu and Hindi

**Interests:** Shoe Design, Digital Art (Procreate), Playing the Guitar and Ukulele, and Sketching

## DESIGN & WORK EXPERIENCE

**Director - Driver Ergonomics, NUSolar**, Evanston, IL

September 2020—Present

- Directed a team of 12 students in designing and manufacturing car parts, prioritizing an intuitive experience for driver interaction
- Mentored new team members and instructed a custom CAD introductory course to increase software fluency and meet interdisciplinary cross-team requirements, collaborating with chassis, telemetry and vehicle dynamics teams
- Designed Solar Car concept models and refined visuals for sponsor marketing using SolidWorks, Keyshot, and Photoshop

**Lead Industrial Designer, City Health Tech**, Evanston, IL

February 2020—Present

- Overhauled the design of the first-generation Opal, a data-driven device promoting healthy handwashing habits
- Directed the full product development lifecycle of the Opal – from sketches to SolidWorks and over 20 iterated physical prototypes
- Designed concepts and generated renders using Keyshot for future Opal generations to ensure forward compatibility
- Generated concepts for the Opal's UI prioritizing user approachability through an inviting design language

**White Space Product Development Challenge, Northwestern University**, Evanston, IL

January 2020—March 2020

- Designed a portable and versatile cutlery container that encourages sustainable eating and cleaning habits on-the-go
- Leveraged user-centered principles for concept validation, culminating in a presentation for judges from Hermann-Miller and Ford
- Competed against 25 teams from 4 Big Ten schools and achieved finalist positions (finals were cancelled due to COVID-19)

**Braille Spinner, Hadley Institute for the Blind and Visually Impaired**, Chicago, IL

April 2019—June 2019

- Utilized design thinking processes to brainstorm, iterate on three stages of mockups, and generate CAD models of a device to aid the Hadley Institute in teaching everyday braille to visually impaired students
- Constructed a prototype "Braille Spinner" with laser-cut acrylic, providing immediate auditory and tactile feedback to users
- Developed a report and presented the final design to an audience of Hadley Institute clients, finishing in 1st position

**Shoulder Sling, North Center Adult Service Program**, Chicago, IL

September 2018—December 2018

- Engineered a shoulder sling for a patient with cerebral palsy, allowing safe and efficient posture adjustment on a wheelchair
- Underwent 2 rounds of design validation, improving the client's quality of life by incorporating key actionable items into designs
- Presented the final prototype to design professionals at Northwestern Design Expo and received the 'Communication Award'

**Intern, Indus Earth Trust**, Karachi, Pakistan

July 2017

- Researched solar micro-grids constructed by Indus Earth Trust in Rural Sindh, surveyed villagers who were previously off-the-grid, and investigated the efficiency of the micro-grids
- Developed a paper evaluating the socio-economic effects of the solar projects, focusing specifically on changes in the villager's incomes and day-to-day lifestyles

## CLUBS & OTHER ACTIVITIES

**Resident Assistant, Northwestern University**

August 2020—Present

- Served as a community advisor and a bridge between Northwestern University administration and its students

**Mail Center Clerk, Northwestern University**

April 2019—March 2020

- Managed the receiving, systematic sorting and delivering of packages for Northwestern University students

**Baja SAE, Northwestern University**

October 2019—June 2020

- Designed and 3D modeled a steering link on SolidWorks to fabricate and assemble in the final car for national tournaments

**Club Cricket, Northwestern University**

March 2019—Present

- All-round player for Northwestern's Division 2 Club Cricket team