KALEB VASQUEZ

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EDUCATION

The University of Texas at Austin: Bachelor of Science, Mechanical Engineering — August 2021 – Present
Cockrell School of Engineering

McAllen Memorial High School: High School Diploma, AP Capstone Diploma — August 2017 – May 2021

WORK EXPERIENCE

Indio Manufacturing – *CAD Drafter*; June 2019 – March 2020

- Developed 3D CAD, computer-aided design, models of a prototype plumbing invention
- Assisted with the process to obtain a utility patent of a plumbing invention using LegalZoom

Victoria Plumbing Project – *Office Assistant*; June 2017 – March 2020

- Performed daily business operations by purchasing material / supplies, making bill payments, answering office phone calls
- Tracked expenses / income via QuickBooks and reconciled commercial bank accounts
- Created and maintained a comprehensive Google Ads campaign to increase customer traffic

ACTIVITIES AND LEADERSHIP EXPERIENCE

EcoCAR EV Challenge – *Connected and Automated Vehicle (CAV) Team Member* August 2022 – Present

- Research how electric vehicles function and how to potentially make efficient changes to a Cadillac LYRIQ RWD
- Employ simulated sensor data to develop custom algorithms and sensor fusion software for the Cadillac LYRIQ RWD
- Utilize Siemens NX to modify existing Cadillac LYRIQ CAD files with our team's suggested changes
- Create new assemblies of vehicle parts and conduct structural analysis
- Navigate a library of over 100 part and assembly files
- Familiarize myself with complicated waiver-modification submission systems

American Society of Mechanical Engineers (ASME) – *Active Member* August 2021 – Present

- Attend monthly ASME meetings to stay up to date on organization events and to hear from various company speakers
- Learn a variety of skills, coding, machine, presentation, etc., from attending ASME workshops

Longhorn Racing Electric (LHRe) – *Operations Team* August 2021 – May 2022

- Planned events / socials to increase engagement between LHRe sub-systems
- Established potential sponsorships by sending out emails to former and new corporate partners

PROJECTS

Fidget Spinner Project

- Utilized SOLIDWORKS to design a variety of creatively designed fidget spinners within manufacturing constraints
- Conducted preliminary finite-element analysis (FEA) and developed computer-aided manufacturing (CAM) programs to create manufacturing molds
- Manufactured molds using computer numeric control (CNC) mills and created body parts using an injection molding process

Plumbing Stub Out Box Project

- Utilized Autodesk Inventor Pro and Fusion 360 to conceptualize a prototype invention
- Converted physical sketch drawings into detailed 2D and 3D CAD models
- Operated a Markforged Onyx One to 3D-print the model and modify where needed

HONORS

- AP Scholar with Honor — May 2021
- AP Capstone Graduate — May 2021
- Cum Laude — May 2021

ADDITIONAL INFORMATION

Certifications: Autodesk Inventor Pro Certified (2019)
Computer Skills: Excel, Word, PowerPoint, QuickBooks Accounting, Adobe Photoshop, Adobe Premiere Pro, WordPress web design, G Suite software, Google Search Console, C programming language, MATLAB, Solidworks, Inventor Pro, NX, Fusion 360
Interests: Additive manufacturing, computer building, airplanes, Apple, Hackintosh