JACKSON HUYNH, EIT

(626) 466-7592 ▪ jacksonjhuynh@gmail.com ▪ San Gabriel, CA
jacksonjhuynh.github.io ▪ linkedin.com/in/jacksonh

TECHNICAL PROJECTS

GE 1.5XLE Wind Turbine Analysis *May 2020 – June 2020*
- Designed a wind turbine blade based off of the GE 1.5XLE in SolidWorks
- Analyzed airflow and pressure gradients of rotating wind turbine blades using ANSYS Fluent
- Calculated deflection and stress in ANSYS Mechanical due to pressure differences on the blades
- Performed error analysis by checking convergence and refining mesh quality

Saturn V Bolted Nozzle Flange *May 2020*
- Modeled the geometry of the Saturn V's F1 engine nozzle using CATIA V5
- Created load/time steps for bolt preload, exhaust pressure, and thermal strain
- Simulated the deformation, stresses, and gapping through load/time steps using ANSYS

NASA Lunar Surface Operations – Design Lead *August 2019 – March 2020*
- Designed, manufactured, and tested a lunar sampling device using SolidWorks
- Improved device functionality by 38% by reducing actuation force using finite element analysis (FEA)
- Developed FEA under various thermal conditions on the lunar surface
- Fabricated prototypes of device using 3D printing/additive manufacturing (MakerBot Z18)
- Manufactured device by welding and machining (vertical mill, lathe, wire EDM, etc.)

Wildfire Particulate Dispersion Model *August 2019 – December 2019*
- Created MATLAB code that modeled wildfire plumes
- Modeled the plume effect with inputs such as wind velocity, wind direction, and wildfire location
- Visually showed the concentration of particulates in a contour graph

Stowable Shopping Cart *March 2017 – June 2017*
- Designed and created drawings for a portable shopping cart using SolidWorks
- Optimized the cart's ease of use and weight for those with mobility issues

EXTRACURRICULAR EXPERIENCE

Society of Automotive Engineers (SAE) – Ergonomics Engineer *August 2018 – March 2020*
- Worked with multiple engineering teams to build a Formula-style racing vehicle
- Designed steering components including the rack and pinion using CAD/SolidWorks
- Reduced weight of vehicle mountings by 12% by using an iterative design process
- Produced detailed drawings using GD&T of components for the manufacturing process
- Assisted in creating mold of the vehicle body with the aero team

WORK EXPERIENCE

Asian Youth Center – Intern *June 2016 – September 2016*
- Tutored elementary and middle school students in a classroom environment

San Gabriel Library – Intern *June 2011 – September 2013*
- Collaborated with a team of volunteers on a program to promote reading to children

EDUCATION

University of California, Riverside
August 2016 – June 2020
B.S. – Mechanical Engineering
Major GPA: 3.51 – Cumulative GPA: 3.31
Dean's Honor List (x5)

CERTIFICATIONS

- Engineer in Training (EIT)/FE Exam Passed
- Certified SolidWorks Associate (CSWA)

SKILLS

- SolidWorks, CATIA V5, AutoCAD
- ANSYS, MATLAB, Python, LabVIEW
- Finite Element Analysis (FEA)
- Computational Fluid Dynamics (CFD)
- Geometric Dimensioning & Tolerancing (GD&T)
- Failure Mode & Effects Analysis (FMEA)
- Machine Shop (Mill, Lathe, Wire EDM, etc.)
- Rapid Prototyping/Additive Manufacturing
- Microsoft Office (Excel, Word, PowerPoint)