

Henry Aguilar

aguilarhenry.com

EDUCATION

The University of Texas at Austin

Bachelor of Science, Mechanical Engineering

Passed Fundamentals of Engineering Exam (EIT)
Bridging Disciplines Certificate in Design Strategies

May 2020

GPA: 3.59/4.00

September 2020

WORK EXPERIENCE

Product Engineering Intern

Summer 2019

Flex LTD

- Designed tight tolerance fixtures to reduce defects using tolerance analysis in SolidWorks
- Decreased pin connector damage in 400 units of one hardware product in Printed Circuit Board Assembly by developing a Computer Numerical Control metal mask and a 3D printed nest fixture
- Assisted with root cause analysis for a customer product during a one-week continuous improvement Kaizen in a team of engineers, technicians, and interns
- Developed fixture drawings conforming to GD&T standards for manufacturing assistance

Design Engineering Intern, Motor Plant

Summer 2018

Toshiba International Corporation

- Streamlined design process for choosing Low Voltage insulation material by compiling AutoCAD drawings and 90 part numbers
- Designed 3 drawings in AutoCAD and PTC Creo to test potential part-numbering systems
- Removed outdated part-numbers and materials by updating over 80 motor ratings in Oracle
- Collaborated with manufacturing and production to capture all dimension characteristics

User Experience Student Researcher

Fall 2019

IBM Design Studio, ITD370

- Prototyped a user experience of IBM data analytics services that reduces technical struggles and errors
- Tested the prototyped process flow for service integration that documented user progress for clarity
- Interviewed program managers, designers, and software engineers using a human-centered approach to understand problem areas
- Developed and integrated storyboards of the before and after to communicate solutions to stakeholders

LEADERSHIP EXPERIENCE

Team UTME Insulation Leader, Senior Design

Spring 2020

Dr. Joseph Koo Research Group at UT Austin

- Led a team of 4 mechanical engineering students to study the insulating effectiveness of additively manufactured structures for NASA space-entry vehicles
- Increased quality of work, team participation, and communication leading a team of 4 engineering students
- Analyzed all modes of heat transfer using Finite Element Analysis in ANSYS to test efficient geometries
- Recommended material property collection methods following ASTM standards to improve simulations

Pi Sigma Pi Minority Academic Engineering Society

Academic Excellence Coordinator

Fall 2017-Spring 2018

- Organized 14 biweekly study nights and 4 Finals Week Study Blocks for minority engineering students providing academic assistance and tutors
- Increased attendance for 2 academic formal dinners by 50% using only 66% of a \$3000 budget
- Led online test bank transition to a new server by managing a database with over 3000 documents

Student Engineering Council Representative

Fall 2016-Spring 2017

- Led 3 minority organizations to compete for the Engineer's Week Competition
- Fundraised \$400 in 4 hours in SEC Cheap Lunch by managing payments and high volunteer involvement

SKILLS

Software: SolidWorks, AutoCAD, PTC Creo, LabVIEW, ANSYS, PLM (Windchill, Oracle)

Manufacturing: 3D Printing, Laser Cutting, CNC, Machining (Lathe & Mill), GD&T, PCBA

Certificates: Certified SolidWorks Professional – Mechanical Design

Languages: Fluent in Spanish

PROJECTS

Take a look at <http://aguilarhenry.com/projects>