FABIAN VAZQUEZ

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EDUCATION

The University of Texas Rio Grande Valley, College of Engineering and Computer Science, Edinburg, TX

Master of Science in Computer Science — Expected Graduation: May 2024

Bachelor of Science in Mechanical Engineering, GPA: 3.77 — Graduation: May 2022
Honors: Magna Cum Laude, Tau Beta Pi, Dean's List

EXPERIENCE

Manufacturing Processes Lab, The University of Texas Rio Grande Valley, Edinburg, TX
Student Academic Assistant — *August 2021-May2022*

- Utilized and guided students to use the Lathe, INSTRON Tensile Tester, Hydrostatic Press, 50 Ton Press, Rolling Mill, MicroScribe, Furnace, BOY 22-A Injection Mold Machine, and Rockwell Hardness tester to complete laboratory experiments.
- Explained manufacturing topics to teams such as Cold Rolling, Powder Metallurgy, Sheet Metal formability, Shearing & Drawing Processes, Metal Cutting, Injection Molding of Thermoplastic Materials, Cold Forging, and Heat Treatment of metals pertaining to procedure and machines used in experiment.

Colorado Engineering, Inc, Colorado Springs, CO
Engineering Intern — *June – August 2021*

- Created 3D models of physical components, enclosures, and connections on SolidWorks by following schematic diagrams and measuring dimensions with calipers.
- Decreased manual labor time by 70% by designing and 3D printing templates used for bending, measuring, and cutting prototype high frequency RF semi-rigid copper wires.

Engineering Intern — *June – August 2020*

- Utilized SolidWorks to design PCB enclosures for testing, 3D printed prototypes, and prepared models
- Wrote procedures for preliminary testing of voltage signals, connections, and temperature guidelines for FPGA's and circuit components.
- Solved overheating issues of FPGA's, CPU's, and other electronic components by performing heat transfer analysis to acquire adequate heat sinks and fans for testing operations.

Engineering Intern — *June – August 2019*

- Tested voltage signals of RF circuits utilizing an oscilloscope to verify correct amplitude, frequency, and debug faulty connections.
- Organized more than 3000 parts of inventory on Excel to verify stock and paperwork on company database by creating a spreadsheet to highlight missing components.

MAJOR ENGINEERING PROJECTS

Smart Additive Manufacturing (SAM) — *2021-2022*

An active system for 3D printers to allow off-site control, printing, and monitoring

- 3D printer slicing, software, and electrical integration leader

ACTIVITIES & SERVICE

IASD Mission Spanish Technology Operator — *2021-2022*
Alfa & Omega Pathfinder Club Counselor — *2016-2019*

SKILLS

- Proficient in Microsoft Excel, PowerPoint, Word, SolidWorks, FreeCAD, and CURA
- Working knowledge of MATLAB, Python, and Arduino
- Hand-on design and manufacturing experience
- **Languages**: English (Fluent), Spanish (Fluent)