Gustavo Martin-Vera

Portfolio: **https://gus-371.github.io/Gustavo-Martin-Vera-Portfolio/**

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United States Citizen | San Bernardino, California (Willing to Relocate)

EDUCATION

University of California, Riverside
Bachelor of Science in Mechanical Engineering
Graduated: 2023

EXPERIENCE

UI/UX Designer - Contracted Web Developer
February 2024 - Present
- Coordinated with clients to define design constraints and specifications to develop responsive web applications using HTML, CSS, and JavaScript.
- Contacted clients via email and phone to provide daily progress reports, ensuring transparency and maintaining alignment with their envisioned design by updating them on project status and making necessary adjustments based on their feedback and concerns.
- Utilized waterfall project management technique to create and execute plans, collaborating closely with a photographer and client for web application content to expedite project completion by 30%.
- Researched and analyzed contemporary web pages to stay up to date with trends, ensuring the design aligns with clients' brand aesthetics and adheres to current standards.

Electronics Repair Technician - Serratos Celulares
November 2023 - Present
- Diagnosed and repaired hardware and software issues of electronic devices, by conducting comprehensive inspections and applying effective troubleshooting techniques.
- Provided exceptional customer service by explaining cost estimates, technical issues, repair processes, and timelines to effectively manage customer expectations, resulting in a 50% increase in customer satisfaction.
- Innovated inventory management, by using Excel to accurately track stock levels and give better oversight of best-selling items, enhancing inventory visibility by 40%.

Design Engineer Intern - Carpintería de los Altos
June 2022 - September 2022
- Created detailed CAD models and 2D engineering drawings for custom furniture pieces using SolidWorks, enhancing the clarity of the drawings which resulted in a 10% faster fabrication process.
- Collaborated with senior designers and craftsmen to refine and finalize design concepts, focusing on design for manufacturing (DFM) and design for assembly (DFA), reducing manufacturing and assembly process time by 20%.
- Utilized Microsoft Excel to create a bill of materials (BOM) for calculating project costs and material usage.
- Engaged in the fabrication process, operating woodworking machinery and tools while performing quality checks and inspections on the assembly ensuring its adherence to design specifications.

PROJECTS

Unmanned Aerial Vehicle (UAV) - Senior Project
September 2022 - March 2023
- Designed and constructed a UAV in a team of four, adhering to Federal Aviation Administration (Title 14 §107) regulations.
- Handled procurement processes with vendors for all necessary parts and components, including industrial grade Helium, through strategic supplier engagement, benefiting multiple senior project groups.
- Led the control systems team in close collaboration with the structural design cross-functional team to 3D print mechatronics housings for seamless UAV integration, while performing root cause analysis (RCA) to assess and resolve any issues.
- Programmed an Arduino microcontroller to process data from ultrasonic sensors to determine optimal flight path.
- Developed a program to optimize flight time by adjusting motor speed based on battery level, improving flight duration by 20%.
- Composed a 70-page final design report in Microsoft Word, employing technical writing to outline the engineering design process for the UAV.

Truss Bridge Analysis - Machine Design Project
March 2022 - June 2022
- Conducted extensive research on bridge designs, focusing on improving structural integrity and identifying failure modes.
- Utilized the weldment feature in SolidWorks to design bridge structure, and created a 2D drawing of the design adhering to GD&T (Geometric Dimensioning and Tolerancing) standards, ensuring the final bridge construction meets the specifications of the drawing.
- Performed Finite Element Analysis (FEA) static simulation in SolidWorks to analyze stresses and failure modes, while verifying the results with hand calculations using Distortion Energy Theory, resulting in a 10% deviation between the predicted and actual value.

SKILLS

Programming: MATLAB, Arduino, Javascript, HTML, CSS, Git
CAD & Manufacturing: SolidWorks, Finite Element Analysis, 3D printing, Machining, Soldering
Other Skills & Software: Bilingual-Spanish, LabView, Microsoft Office, Word, Excel, AI Tools, Project Management

LICENSES & CERTIFICATIONS

Valid California Driver's License
Certified SolidWorks Associate - Mechanical Design (CSWA)
Certified SolidWorks Associate -Simulation (CSWA-S)

Certified SolidWorks Associate - Additive Manufacturing (CSWA-AM)
Procore Certified: Engineer
Certified Responsive Web Designer - FreeCodeCamp