
Marlo Amaya

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Summary

Efficient problem solver with experience in mechanical design and failure testing. Pride myself in dependability when working in team projects or independently, and in my technical expertise with engineering applications.

Highlights

- Software and hardware troubleshooting
- Statistical analysis
- Finite element analysis
- Control systems and vibration analysis design

Application Software

- MATLAB & Simulink
- ANSYS (FEA)
- SolidWorks
- Microsoft Word, PowerPoint, Excel
- AutoCAD
- PTC Creo Pro-E

Equipment Knowledge

- 3D Printing
- Soldering
- ESD/Electronics handling,
- Acoustical Analysis/Testing
- Arduino prototyping and basic circuit design

Languages

Fluent: English, Spanish

Programming

Python, C++, HTML, CSS

Volunteering

- ILTexas Tutor
- Houston SPCA
- Red Cross Missing Maps

Activities

- Member of AIAA, and IISE
- Golfing, Running, Hiking
- Computer repair

Education

University of Houston | Houston TX | Bachelor of Science **Dec. 2017**

Major: Mechanical Engineering

Minor: Mathematics

Minor: Computer Science

Team Projects

Capstone Design | Fixed Wing Drone **Apr. 2017**

- Led the prototype design using computational fluid dynamics analysis
- Used Design for Assembly processes to conduct frame build and controller casing design.
- Integrated hardware and modeled optimized control system to maximize maneuverability during flight.

Machine Design | Rotational Actuator **Dec. 2016**

- Collaborated to create 3-D CAD models of primary components to Design for Manufacturability (DFM) standards.
- Performed stress analysis to define life span of the designed components.
- 3-D printed and assembled the model according to given geometric tolerance limits defined.

Mechanical Design | Ball Sorting Device **Dec. 2015**

- Constructed the frame used for the device and performed structural analysis.
- Designed the gear mechanism used to control the horizontal motion and simultaneous sorting.
- Created the timed electronic release lever used to place the balls into respective containers.

Work Experience

Apple Inc. | At-Home Technical Support Advisor **2015-Present**

- Provide technical support for iOS and Mac OS X devices in Canada and U.S.
- Conduct individual self-guided trainings to stay up to date with common issues and updates.
- Maintained a 94% average customer satisfaction rating in 2017 with 4 months at 100%.

Best Buy Co. | Full-Time Senior Advanced Repair Agent **2012-2015**

- Ensured accurate and efficient repairs were performed on client's computers.
- Assisted managers with training duties, and led department meetings.
- Modified repair process layout to reduce turnaround repair from 4 to 2 days.

TS3 Technology Inc. | Mechanical Assembler **2011-2012**

- Assembled voting machines for the state of Oklahoma and Control units for bi-fuel fracturing trucks.
 - Completed assembly by following schematics provided by client, and designed packaging layouts to maximize outgoing shipment flow.
 - Provided feedback about building process to improve production, and improved voting machine production from 65 to 99 units per day
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