Marlo Amaya, EIT

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Summary

Mechanical engineer with large project planning experience using design and analysis techniques, and proficient use of programming and engineering applications such as MATLAB and SolidWorks.

Education

UNIVERSITY OF HOUSTON - BACHELOR OF SCIENCE - MECHANICAL ENGINEERING - DEC 2017

- Minor: Mathematics
- Focus on: System Controls & Vibration Analysis, Programming w/ Python, C++, Matlab

Experience

PROJECT ENGINEER; ENSITE USA - TRANSCANADA, HOUSTON, TEXAS - OCT 2018 - PRESENT

- Manage pipe refurbishment data collection for over 1.5M feet of pipe used for Keystone XL.
- Build Visual Basic tools to organize and reformat data used to formulate reports to assist with planning.
- Review technical documents used to communicate procedures to external and internal stakeholders.

SENIOR TECHNICAL SUPPORT ADVISOR; APPLE INC, AUSTIN, TEXAS - JUN 2015 - SEP 2018

- Mentor incoming Tier 1 advisors on proper procedures through live call shadowing.
- Finished in top 5% nationwide in first quarter in role, based on customer satisfaction and issue resolution.
- Partner with engineering groups to resolve undocumented issues or safety captures on mobile devices.
- Maintained a 95% average customer satisfaction rating in 2017 with 6 months at 100%.

ADVANCED REPAIR TECHNICIAN; BEST BUY INC, PEARLAND, TEXAS – AUG 2012 - JUN 2015

- Performed repairs on electronic devices ranging from mobile to desktop computers.
- Assisted managers with training duties, and led department meetings.
- Modified repair process layout to reduce turnaround repair from 4 to 2 days.

Professional Development

TEXAS BOARD OF PROFESSIONAL ENGINEERS – ENGINEER-IN-TRAINING – OCT 2017

- Texas EIT Number: 61655

AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS - SPACEX COMPETITION - UH HYPERLOOP TEAM

- Assisted with initial aerodynamic design of the pod using ANSYS to minimize estimated drag and lift coefficients, and structural analysis to maximize estimated speed and maintain structural integrity while reducing overall mass.
- Collaborated in team of 7 members to assemble a 3D hang-printer used to manufacture internal components and improve print range by adding adjustable anchor points.

Projects

CAPSTONE DESIGN – FIXED WING DRONE – APR 2017

- Led the prototype design using SolidWorks dynamics analysis.
- Implemented Design for Assembly processes to conduct frame build and controller casing design.
- Assisted with assembly of final prototype and interconnecting electronic components.

PROGRAMMING PROJECTS – DEC 2017

- Java Applet: Created GUI with Swing for graphing applet used to plot nodes or user input functions.
- Image Matching Program: Wrote python program used to scan through database of jpg files and match them to a query of images to display similar files in a table format.
- Analytics Project: Created MATLAB program used to scan database of handwritten digit images by implementing the k-means algorithm to display representative groups for each cluster and presented result to classroom of 25 students.