Jonathan Anderson

Mechanical Engineer

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Education

B.S. Aerospace Engineering | The University of Texas at Austin | Aug. 2010 – May 2014
Cumulative GPA: 3.60 / 4.00

Experience

Mechanical Engineer | Abaco Systems, Inc. | October 2016 - Present

- Designed multiple 3U/6U systems and PCB assemblies for helicopter and ground vehicle platforms
- Performed system and board level thermal analyses with SolidWorks FlowSim
- Performed system and board level vibration/structural analyses with SolidWorks Simulation
- Performed fatigue analysis on solder joints using Steinberg's guidelines
- Verified structural and thermal models through qualification testing per MIL-STD-810
- Generated assembly documentation and BOM's for factory and supported first article builds
- Generated 2D drawings for machine shop using GD&T controls per ASME Y14.5-2009
- Led new technology initiative investigating use of metal 3D printing for chassis'
- Implemented Resilient Modeling Strategy across Abaco global mechanical engineering team
- Performed CapEx analysis, purchased, and commissioned 3D printer for Huntsville site
- Wrote multiple SolidWorks macros to automate various drawing tasks

Mechanical Engineer | IXV Labs Inc. | July 2014 – May 2016

- Designed 3 electronics enclosures for a solar power system using SolidWorks
- Guided designs through DFM process with injection molding and die casting partners
- Worked with local machine shop to prototype aluminum enclosures via CNC machining
- Selected parts/materials, ascertained quotes from vendors, and maintained entire mechanical BOM
- Designed and built 1.28kW Solar Awning
- Performed thermal analysis for switching devices on microinverter PCB
- Generated 2D technical drawings for quality control and sample inspection purposes
- Worked with electrical engineer to generate manuals and technical drawings for UL certification

Skills

Patents: Co-inventor for U.S. Patent No. 11,112,840
(ELECTRONICS CHASSIS WITH OSCILLATING HEAT PIPE)

Programming: MATLAB, C, C#
Excel and Solidworks VBA

3D Modeling: SolidWorks 2019 (w/ Simulation, FlowSim), Autodesk Fusion360

PDM/ERP: SolidWorks PDMWorks, SAP

Presentation: MS Word, Powerpoint

Prototyping: MIG Welding
Plasma Cutting
Soldering
3D Printing (DMLS, FFF, SLA)
Manual and CNC Milling

Employability Status: US Citizen/Permanent Resident