**Aalan Miranda**

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**Electrical Engineer | Software Developer | Leader**

Electrical Engineer with 5 years proven experience which range in scope, field, and markets in the United States and abroad in software, pneumatics, mechanical, and low-to-high voltage electrical design. Strong leadership experience solidified by two years as President of IEEE chapter, and excellent collaborative technical experience gained through expansion of product portfolios with cross-functional teams. Notable accomplishments include:

* Developing Leak Tester Device using Allen Bradley PLC
* Designing, validating and deploying Lithium-Ion Battery Energy Storage product for Substation Utility Backup
* Designed and validated scale model of Pumped Hydro-Storage Energy System
* Third Place in IEEE Coding Competition
* Developed business strategies and market understanding for Indigenous Mayan Communities based off competition, customer accessibility, and Mexican patent law.

**SKILLS**

* Experience in Solidworks and AutoCAD, Autodesk Inventor
* Profound C programming skills, primarily in data structure solutions
* Experienced in Drone (Unmanned Aerial System) design, assembly and wiring schema
* Experienced with Arduino Uno and C++ Microcontroller Programming
* Experienced in Utility Grid (Generation, Transmission, Distribution) Systems
* Experienced with Ladder Logic Applications for PLCs
* Smart grid deployment and photovoltaic/battery integration
* DC Power Management, Power Electronics and Load Flow Solutions
* Understanding of Power Grid Infrastructure and Operational Economics
* Strong Leadership Skills reinforced by 2 years as IEEE student chapter president
* Experience in JS/Node, Full Stack Development

**WORK EXPERIENCE**

**Full Stack Engineer | Scalable Press | Indianapolis, IN | November 2018 - Present**

* Leveraged JavaScript tech stack to enhance and support mission-critical systems
* Implemented workflow changes to reduce troubleshooting times by fifty percent
* Liaison between Operations, IT, Engineering and Production Staff
* Worked in cross-functional teams to identify root cause of issues and preventative action

**Technical Analyst | Landis + Gyr | Alpharetta, GA | June, 2016 – May 2018**

* Worked independently on battery storage design element to be added to product portfolio
* Analyzed Georgia utility trend of energy supplied by fossil fuel vs. renewable energy
* Validated, compiled, and deployed coding for signature smart meters
* Documented and validated testing procedure for smart meters

**Manufacturing Engineer | SMC USA | Noblesville, Indiana | Jan, 2013 – August, 2015**

* Developed and deployed leak tester device using Allen-Bradley PLC
* Performed continuous improvement projects as assembly line required
* Designed additional assembly line solutions using Solidworks and 3D Printing

**VOLUNTEER EXPERIENCE**

**Commissioned Diplomat | Mexican Consulate | Chiapas, Mexico | February 2016**

* Assisted in transfer and repatriation of Mexican mental health patient

**President | IEEE-IUPUI Student Chapter | Indianapolis, IN | August 2015-May 2017**

* Managed chapter events on campus (drone, Arduino, and coding workshops)
* Led/managed officer representation at state and regional conferences (EnCon,SLC)

**Intern | US-Mexico Foundation | Q.R., Mexico | February 2016**

* Assisted indigenous Mayan businesses in establishing online branding and presence
* Collaborated with Mexican government to ensure fair trade practices for Mayans

**PERSONAL PROJECTS**

**Solar-Powered Battery Backup**

* Prototype Battery Backup System for Domestic Outage Applications and Grid-Tie POC
* 100-W Solar Panel with 12-Volt AGM Battery and 300-Watt, 120-Volt Inverter Output

**Hydro-Pumped Storage Facility**

* POC, 100-Watt Scale Model of 10 MW Facility for Peak-Shaving Applications
* MATLAB-Powered GUI, 12-Volt Motor, Valves and Emergency Disconnect

**EDUCATION**

**Purdue University-Indianapolis Graduation Date: May 2018**

**Electrical Engineering**