JARROD RESMONDO

(850) 512-2259 SPARKELECTRONICSYS@GMAIL.COM HTTPS://SPARKESYS.GITHUB.IO

COMPUTER & ELECTRICAL ENGINEER

Dedicated professional with 7 years of experience developing hardware controls, designing circuitry and printed circuit boards, programming automation sequences and custom controllers, developing test fixtures and documenting accident sites.

PROFESSIONAL EXPERIENCE

MCSWAIN ENGINEERING INC. – *Pensacola, FL*

Electrical Engineer **2020-Present**

Conduct accident investigations in industrial, aviation, and automotive fields rendering failure analysis support to material and mechanical consulting engineers. Measure subject and exemplar parts utilizing 3D scanning, touch probe coordinate measurement machine, computed tomography (CT), and radio-graphic x-ray.

- Provide research and formal report preparation of material analysis, design principles, industry standards, and government regulations.
- Program multi-channel data acquisition system to measure displacement, angular position, temperature, stress, strain, force, pressure, and acceleration data with video acquisition for electromechanical test fixtures.
- Construction of sensor grade cable assemblies for high stress environments.
- Designed micro controller based electromechanical test fixtures using I2C, SPI, RS485, RS232.
- Collaboration with multi-discipline engineering teams in a fast-paced environment to provide comprehensive case file production for litigation.

Engineering Internship **2015-2020**

- Designed mechanical parts, PCB's and enclosures for rapid prototyping via 3D printed (resin, FDM), or CNC milled.
- Developed data acquisition setup and test sequences, programming of automation software and design of hardware for testing.
- Conducted 3D Scanning with handheld (structured light), long range(laser) and portable CMM 3D Scanners.
- Managed company-wide calibration of over 200 pieces of equipment, sensors, and tools.

SPARK ELECTRONIC SYSTEMS LLC – *Pensacola, FL* **2017-2018**

Contracted by the Museum of Naval Aviation to develop and design an embedded electronic hardware control system for a Mutoscope Exhibit.

- Programmed small form factor computer to detect the rotational movement of an external handle utilizing a custom encoder to trigger the playback of an educational video.

EDUCATION

University of West Florida **December 2020**
Bachelor of Science in Electrical Engineering
Bachelor of Science in Computer Engineering
Minor in Computer Science

Jarrod Resmondo

Awards

University of West Florida **December 2020**

"2020 University Of West Florida Dr. Muhammad Rashid Best Capstone Award"
Underwater Robotic Observation Vehicle –https://sparkesys.github.io/Projects/UROV

Certifications and Training

LK Metrology	**Nikon Metrology**	**FARO**
CMM Basic	X-Ray/ CT, VG Studio Max	3D Scanning

Computer Proficiencies

Autodesk Fusion/Inventor	Polyworks Inspector	Visual Studio
Solidworks	EaglePCB	Stm32CubeMX
Geomagic Design X	Multisim, Ultiboard	MATLAB

Programming Languages

C	C++	C#	Python	Assembly	VHDL