RYAN SASS

Mechatronics Engineer

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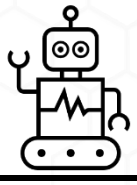

EXPERIENCE

Senior Systems Engineer

Ripcord, Inc. Hayward, CA 5/2023 – 4/2024

A leader in document-to-data conversion using AI and robotic automation.

- Led the engineering development and managed a 5-person engineering team for the automated robotic book imaging machine project, managing the entire 7-month design development from prototype to production and successfully deploying two prod machines in Japan.
- Designed and fabricated numerous mechanical assemblies and countless parts using SolidWorks to support testing, design development, and final design.
- Developed and implemented robotic movement code and process flow development, showcasing ability to code in V+ (ACE) for the robotic arm, TwinCAT automation software for PLC-Robot arm interfacing, and Visual Studio for coordination of vision components and motion actuators as well as GUIs.
- Promoted to primary SolidWorks PDM Admin managing the company's PDM data Vault with MySQL.

Senior Application Engineer

EaglePicher, Inc. Remote 9/2019 – 1/2023

A manufacturing leader in battery, energetic, and BMS technologies with solutions for aerospace, defense, and health.

- Created pricing estimation tools using advanced Excel skills to improve cost projections by 15% and contract execution efficiency by 10%.
- Provided design support in SolidWorks and technical write ups for customer engagements.
- Applied project management skills to generate accurate business proposals including project schedules, resource requirements, cost estimations, project feasibility, and technical solutions.

Technical Project Manager

EaglePicher, Inc. Burlingame, CA 9/2018 – 9/2019

- Led the product development of a smart battery system with hands-on management of multi-disciplinary engineering and operational teams including developing of technical solutions to address development gaps.
- Developed and executed recovery plans, timelines, and revised budgets during development conflicts.
- Achieved timely, quality completion of project CDRLs and deliverables, meeting specified targets.

EDUCATION

Master of Science, Mechanical Engineering

with Emphasis in Robotics and Mechatronics

Santa Clara University 2016

Bachelor of Science, Mechanical Engineering

UC Santa Barbara 2009

CERTIFICATIONS

Certified SolidWorks Expert
Certificate ID: C-GM95EE8DNE

Certified SolidWorks Simulation Professional – FEA
Certificate ID: C-58B8GQXSLR

Google Project Management
Coursera Certificate: UPYUU5BGXNBH

SKILLS SUMMARY

Systems and Automation
UAV automated control, hardware and software control systems, mechatronics & electro-mechanical systems, PLC programming and control, IIoT

Robotics
FANUC, KUKA, UR, Rethink Robotics, Epson, Cognex Vision, trajectory planning, end effector design and integration, control algorithms, kinematics & dynamics

Product Development
Concept, design, DFM, prototyping, analysis, DFMEA, testing, validation, review, manufacturing layout, final assembly, quality, and cost reduction

CAD and Analysis Tools
SolidWorks, SolidWorks Simulation, Ansys FEA

Firmware and Embedded
C++, C#, V+, TwinCAT, Arduino, Galil DMC, SpEL, Ladder Logic

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Mechanical Engineer

Lead Automation Engineer

Jabil, Inc. San Jose, CA 9/2017 – 7/2018

A global leader in contract manufacturing innovating automated manufacturing to reduce mass production costs.

- Led a five-person design team in the development of robotic work cells for large-scale production.
- Designed and validated to create end-effectors, vacuum and pneumatic grippers, and transfer modules to support high-volume production lines.
- Wrote embedded software for 6-axis robots and PLCs.
- Worked closely with senior management to generate plans and budgets using MS Project, Excel, and Visio.
- Collaborated in the development of a product validation tool using Cognex Vision and C++.
- Characterized brushless motors and motion controllers for dual-axis manipulation (ASC and Bosch).
- Validated prototype designs using cutting-edge additive manufacturing, including Poly-jet and ABS.
- Leveraged extensive experience in SolidWorks to update team best practices for engineering drawings.

Mechatronics Engineer, Advanced Product Dev.

Think Surgical, Inc. Fremont, CA 11/2016 – 8/2017

Developing the next gen and manufacturing the only active tracking robotic surgical system for orthopedic surgery.

- Led the development of robotic-arm support assemblies, using SolidWorks.
- Collaborated with software development team to define robotic joint space and end-effector tooling.
- Produced detailed drawings and oversaw fabrication of machined and additive mfg'd (CJP) parts.

Mechanical Engineer

Qylur Intelligent Systems, Inc. Palo Alto, CA 9/2010 – 8/2016

A technology and security company developing an automated, multi-user, x-ray baggage scanner.

- Drove design refinements from prototype through beta production using ASME Y14.5-2009 to convey technical solutions and implementing system safety protocols to meet UL, CE, FDA, NEMA, and OSHA standards.
- Wrote PLC software and oversaw its integration into a multi-tiered software architecture.
- Characterized, selected, and debugged various mechatronic components, including motors and servos.
- Managed the deployment of mechanical production lines, and deployed systems at multiple international locations.

Software Exposure

C, C++, Python, Kotlin, MATLAB, SQL, HTML, CSS, PHP, JS

Client-Facing

Clear communication, emotional awareness, problem solving.

Project Management

MS Project, WBS, SOW, CDRLs, KPIs, resource management, process improvement, budget and risk management

Electronics

Circuit diagrams, board design, grounding, DC analysis, validation, debugging

Fabrication

Additive mfg, laser cutters, mills, lathes, CNC, soldering, and hand tools.

Battery Design

Thermal and runaway mitigation, BMS architecture, system integration

Battery Safety

S9310, SG270, UN/DOT 38.3

Standards

UL, CE, FDA, OSHA, ASME, ISO, NEMA, FAA, IEEE, MILSTD-810, IP-xx