Conor McMillan

+1 425-231-0081 | Conor.McMillan@Gmail.com

Summary

Mechanical engineer working in hardware for the past ten years. Experienced electromechanical prototype evaluation. Focused on solving the hard problems. Driven to work in a multidisciplinary team who values building our best work, taking concepts from ideas to products.

Professional Experience

Cruise, Senior Mechatronics and System Architecture Engineer
November 2021 - Present

Working within Cruise, there is a drive to push the cost of down across the delivery fleet hardware. Collaborating with both hardware design, embedded systems and software production teams. Starting in a new organization and supporting the team to create a completely new embedded hardware platform.

- Product architect for new hardware platform, supporting 24/7 operation in extreme harsh environments with commercial applications.
- System Architect for new purpose-built industrial controller supporting mobility platforms.
- Developed a team with software and firmware talent to support the new platform
- Responsible for multiple hardware demo prototypes for internal and external demos.
- Developed automated testing platform to support prototype testing

Apple, IS&T Hardware engineer ICT 5
August 2018 - November 2021

Working in Apple, I worked to apply more rigor to our hardware and exploratory design process. Within IS&T following any of the PLM and design process is very foreign. During me time, I brought as many Apple tools and systems back to my team who did not operate within the core of Apples engineering orgs. Leveraging internal collaboration tools including PLM. My role was at the intersection of operations and development. Working on a team whose primary focus is going from initial whiteboard idea to first article. In the small team I have become the one stop shop. With many of the hardware prototypes, I have owned everything, from schematic to the mechanical design.

- DRI for a 16x debug board that's purpose is to drive down the cost of device development clusters and regression testing.
- Defined pass-fail requirements for iClouds device compute chassis that are now being installed in the data centers
- Working with team members to define Apples Data center SSD needs assessing the component level tradeoffs and limitations when defining new and novel hardware.
- Collaborating with team members to understand consumer device life cycle and how to create opportunity for Apple SOC IP within a data center application
- Responsible for CAE using both SolidWorks and Ansys simulation. To evaluate the fitness of novel server hardware designs.

The Select Group, Hardware Design Engineer, Apple Contract
May 2018 – August 2018

Working within the iCloud organization

- Taking complex systems from prototype to production with manufacturing partners and focusing on system lifecycle system component and hardware qualification (e.g. environmental, performance, integrated test, reliability, etc.)
- Responsible for electrical and mechanical design
- Roadmap planning
- Design verification based on contract manufactures.

Worldstage, New Product Introduction Research and Development Engineer
June 2015 – May 2018
At Worldstage my responsibilities revolve around developing concepts, prototypes and leading R&D efforts for new permanent installations within audio and video market segments. Responsible for meeting the technical, human factor and reliable specs for products that must be road worthy for show after show.
•Worked with and visited vendors in South Korea, China and Taiwan contracted for new products.
•Responsible for establishing NPI teams within the company, partnering with sales and user groups.
• directed hands on prototyping, and first article production for NPI
• Create documentation for new systems and acceptance testing
• Manage rapid deployment of Network infrastructure across multiple sites.
• Responsible for basic show related IOT projects improving equipment feedback and uptime
• Established FEA practices on new products to understand failure modes during design process

UTC Aerospace, Production Engineering Intern
June 2012 – December 2012
When working for UTC Aero Space my internship had a broad range of subjects. Working in things like material science to manufacturing process design.
• Presented a recycling program to the head of the division saving roughly $500,000 a year
• Performed failure analysis on existing machines for ongoing process improvement
• Assisted production line study and kaizen performance improvements
• Worked with local vendors on sheet metal and machined parts for production machines

Disneyland, Industrial Engineering Intern
March 2010 – August 2010
With Disneyland I was working on multiple problems across the resort. Helping to establish time studies in operations and reliability.
• Established metrics for a resort time study focusing on call centers both in Anaheim and Orlando
• Worked with attractions teams to establish reliability and operation standards
• Developed an app for a handheld to capture user data during studies

Skills

Solidworks(15 years), Rhino3d (17 years), AutoCad(10 years), NX(1 year), Allegro(3 year)s, Altium(1 year), 3d Printing SLS/FDM/SLA(7 years), PLC programming(4 years), Fanuc Robots(3 years)

Education

B.S. Mechanical Engineering, Eastern Washington University