Andrew Balboni

andrew@balbonidesign.net • +1 978 944 2386 • Boston, MA



Skills

Project Management

Leadership Scope & timeline definition, resource allocation, task delegation, statistical data analysis & reporting, executive summation & communication

Manufacturing Production line qualification & deployment w/ overseas CMs (China, Hungary, Germany), product lifecycle & change management

Quality Production capability optimization & monitoring (Lean), APQP & management (ISO 9001), material inspections & audits (ISO 2859), failure analysis & replication (8D, DMAIC)

Design & Documentation

3D SLS, SLA & FDM printing; injection molding; laser & water jet cutting; milling & turning; progressive sheet metal forming; vacuum & thermoforming

Digital CAD modeling & simulation (FEA), GD&T (ASME Y14.5), drawing & rendering

Hand Line drawing, soldering, welding (flux, TIG)

Mechanical Functional prototyping; tolerance stack analysis; design verification, lifetime & performance testing

Software

15+ years SolidWorks, Photoshop, Illustrator, InDesign, Microsoft Office.

5+ years OnShape, Fusion 360, Dreamweaver, Lightroom, Atlassian JIRA & Confluence, Google Workspace, PreForm

3+ years JMP, Propel, Simplify3D, KeyShot, Premier Pro

Languages

5+ years German (professionally fluent), SQL, G and M Code

2+ years Python, C++ and JavaScript

Education

Greater Boston Manufacturing Program, 2023 - 2024

Obtained a Lean Manufacturing Certificate after completing an eight-part course comprised of academic study and practical application of Lean Thinking.

Quality Support Group, 2022

Obtained a Certificate of Completion after completing a four-part 8D Root Cause Analysis and Problem Solving training workshop.

Rochester Institute of Technology, 2012 - 2016

Bachelors Industrial Design, December 2016, 3.2 GPA

Concentrations Product design, digital fabrication, human factors and rapid prototyping, German as a second language

Study Abroad Junior year at Hochschule Anhalt in Dessau, Germany via RIT's exchange student program. Areas of study include human factors, full-sized prototyping, interaction and exhibition design.

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Experience

Senior Sustaining Engineer, Formlabs

Somerville, MA 2024

- Own **APQP**, implementing 5 material and process control plans (article inspections, AQLs per ISO 2859, SPCs, PFDs, response planning) for Formlabs' inmarket SLS products, after conducting 8 vendor audits (ISO 9001) and defining GD&T for 397 distinct items.
- Reduced average (90-day) Fuse 1+ assembly and qualification cycle times by 17% and 23%, respectively. Increased FPY of final performance qualification by 87%—stabilized to 100%—in less than 3 months.
- Drive jidoka-focused RCFA/CA implementation and monitoring of P0 quality issues, requiring CMs and vendors to take immediate proaction and issue SCARs.
- Reduced TTR from line-stopping issues by 77% via decentralized communication between Formlabs, CMs, vendors and 3PLs to minimize operational costs, instabilities and risks with Fuse 1 Series production.
- Executed **PPAPs** for 3 new cast precision drive train components while developing, qualifying (MSA) and deploying 2 new (G/NG IR sensor inspection jig, laser power meter) and 1 redesigned calibration jigs (radiometric IR sensor calibration) for Fuse 1+.

SLS Technical Lead, Formlabs

Somerville, MA 2022 - 2024

- Leverage product and technical subject matter expertise, **statistical analyses** of customer and manufacturing KPIs to drive Sustaining engineering work across Global Operations and Product teams, and routinely share scope, key developments and risks with leadership.
- Ensure continual, accurate information exchange (RCFA and **DFMA** audit results, revised **performance criteria**, post-NPI **D/ECOs**) between R&D, Global Operations, Customer, Product and Embedded teams.
- Championed the reduction of CoPQ for Fuse 1 Series by 19% in 2023 via dynamically **allocating NRE** to tasks and projects as the platform's priorities evolved.
- Successfully coordinated reworks of \$8M worth of FG inventories in under 2 months, avoiding a ~\$47 per unit CoPQ increase.

SLS Services Engineer, Formlabs

Somerville, MA 2020 - 2022

- Concise communication of updates from Engineering stakeholders to Customer and Documentation teams for establishing priorities, developing workflows in/ external content (customer and agent trainings, knowledge base articles, SOPs, white papers).
- Own cataloging, troubleshooting and executive reporting of fleet issues while developing solutions with various Engineering teams.
- Managed a 10 month beta, during which we deployed 18 PVT units (11 Fuse 1s and 9 Fuse Sifts) amongst US and EU beta users.
- · Drafted and released 68 SOPs for servicing and maintaining Formlabs SLS hardware, as well as > 80% of the Fuse 1 and Fuse Sift user manuals.
- Increased fleet issue tracking data accuracy by 19% via redevelopment of Formlabs' Salesforce platform and workflows. Contributed to SLS NPS increases of 23% in 2021 and 37% in 2022.
- Recipient of Formlabs' PerForm award (Sep. 2021) for consistent, outstanding performance in driving Customer Teams' success during Fuse 1 NPI.

Senior Pro Services Expert, Formlabs

Somerville, MA

2019 - 2020

- Interact directly with customers through various mediums to diagnose and resolve a variety of hardware, software and workflow-related issues.
- Own and deliver resolutions for irregular or technically complex issue cases not frequently seen by Services.
- Obtained an engineering certification for my comprehension of Formlabs' SLA products 3 months ahead of schedule for new hires, fortifying the Customer Teams' success.
- Established an average time to resolution for support cases of 8.60 hrs—eclipsing the target SLA of 12 hrs.

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Experience

Digital Fabrication Specialist FabLab Director, RIT

Rochester, NY 2017 - 2019

CAD FabLab, specializing in digital fabrication technologies (3D printing, CNCing, laser cutting, etc.). My duties included procuring hardware and materials, developing workflows, budgeting expenses, hardware maintenance, and managing 12 student employees.

Adjunct SolidWorks Professor School of Design, RIT

Rochester, NY 2018. 2019

Introducing Industrial Design sophomores to CAD modeling using SolidWorks, Keyshot and digital fabrication technologies.

3D Printing Lab Admin School of Design, RIT

Rochester, NY 2015, 2016

Managing a student-run 3D printing lab in College of Imaging Arts and Sciences (now College of Art & Design), consisting of SLA and FDM printers, as well as a class 2 laser cutter. The lab is partially funded by running jobs submitted by students, faculty and alumni of RIT.

Mobile User Experience Intern Enel X (Formerly EnerNOC)

Boston, MA 2015

Interview EnerNOC's users to assess how they use mobile platforms in order to develop an internal design guide for building mobile experiences with platform scalability. EnerNOC provides real-time electricity data to corporations, government and educational institutions.

CADTech Hardware Technician School of Design, RIT

Rochester, NY 2014 - 2015

Computer/AV hardware, software repair and service technician for the College of Art & Design.