Caitlyn Richmond

caitlyn.a.richmond@gmail.com | US Citizen | linkedin.com/in/CaitlynRichmond

Education:

Wentworth Institute of Technology, Boston, MA
Bachelor of Science in Electromechanical Engineering — Graduated August 2019
- ABET accredited 5-year interdisciplinary program

G.P.A.: 3.36/4.00 | Dean's List Fall 2018, Spring 2019

University of Nottingham, Nottingham, UK
Master of Science in Additive Manufacturing and 3D Printing — Graduated December 2020
- Dissertation topic: Exploring the Compatibility Between Conductive Metals Processed by MetalJet and Dielectric Substrates

Work Experience:

Chorus, Marlborough, MA
Lead Engineer — *December 2022 – April 2023*
- Built, managed, and maintained prototype units.
- Wrote documentation on prototype builds, troubleshooting, and maintenance.
- Conducted systems-level root cause analysis on prototype failures.
- Participated in formative studies to guide product development.
- Implemented significant improvements in laboratory safety and organization.

Markforged, Watertown, MA
Materials Print Engineer I — *February 2021 – July 2022*
Materials Print Engineer II — *July 2022 – December 2022*
- Tech lead for ULTEM™ 9085 and new material integrations on FX20, Markforged's flagship 3D printer.
- Worked with respective teams (SW, ME, EE) on testing systems-level changes and electromechanical/software root cause analysis throughout the product development process.
- Troubleshot real-time, novel system issues in line on the production floor for end of quarter deliverables.
- Documented common in-line and in-field troubleshooting practices to be understood by a cross-disciplinary audience.
- Provided high-level system overviews of FX20 to prospective customers and analysts at RAPID+TCT.
- Trained new employees on print engineering best practices.
- Created SOPs and Work Instructions for new material print tuning procedures.
- Managed fleet of prototype units, focusing on maximizing usable uptime.
- Subject matter expert on material tuning parameters for Markforged printers.
- Trained in material characterization techniques such as DSC, TGA, and tensile/flexural testing.

Wentworth Institute of Technology, Boston, MA
Additive Manufacturing and 3D Printing Lab Assistant — *May 2019 – August 2019*
- Conducted machine maintenance (calibration, cleaning/replacing print heads, etc.)
- Determined material(s) cost for prints and issue quotes to customers.
- Post-processed printed parts (support removal, sanding, photo-bleaching, etc.)
- Designed products for clients as requested using Solidworks.
- Maintained part queue, and track parts throughout the process.
- Identified and relayed better practices for more consistent part results while manufacturing.
- Researched and relayed when traditional manufacturing would be better suited.
- Held lab tours and demonstrations for prospective university donors, students, and parents.
- Created design guidelines documents and decision trees to aid customers in the design and order phase.