

Caroline Colombo

978.317.9709
CarolineColombo.com
caroline.m.colombo@gmail.com

EDUCATION

Carnegie Mellon University, Pittsburgh PA
Master of Science, Mechanical Engineering, May 2014
Bachelor of Science and Arts, Physics and Sculpture, May 2013

HIGHLIGHTS

- Multiple consumer products brought to market from initial concept sketches
- Experience with SolidWorks, CAD Design, GD&T, FEA simulations, DFMEA, stress analysis, design for manufacture and assembly, and manufacturing drawings
- Rapid prototyping and manufacturing experience with plastics, metals, and composites
- Experience designing to government safety standards

WORK EXPERIENCE

Mechanical Engineer Contractor, Microsoft Corporation
Seattle, WA, April 2018 – December 2018

- Designed wireless charging flexible circuit board features
- Performed quality control and functional mechanical tests
- Discovered and eliminated process malfunction on factory floor
- Prepared drawings for factory production

Reactor Mechanical Engineer, Bettis Atomic Power Laboratory
Pittsburgh, PA, February 2016 – April 2018

- Performs mechanical engineering evaluations, structural analyses and design reviews associated with reactor cores and reactor heavy equipment of naval reactors
- Analysis of mechanical and structural components, systems and equipment of the NIMITZ class aircraft carriers, SEAWOLF class submarines Moored Training Ships and MARF training platforms.

Drone Design Contractor, Identified Technologies
Pittsburgh, PA, August 2016 – October 2016

- Designed and built new injection molded drone body that reduced part count by 20% and body assembly time by 15%
- Improved original design by creating an injection molded body which sealed against dust and debris
- Developed cost and durability analysis for 3D printed and injection molded parts; analysis was used by Identified to plan their next stage of product development

Mechanical Engineer, 4moms
Pittsburgh, PA, July 2014 – November 2015

- Created engineering drawings for multiple subsystems for different product lines; drawings are currently being used in manufacturing facilities
- Designed head-rest and harness system for 4moms Infant Car Seat that eliminate user errors while complying with U.S. infant car seat safety regulations
- Responsible for the stress analysis on all structural components of the Moxi stroller
- Developed and implemented ANSYS simulations and tests to ensure stroller complies with ASTM F833 and international safety standards
- Designed custom injection-moldable gear box system for electrical generator in stroller optimized to provide maximum electrical output and withstand the life of the product
- Identified fatigue failure points on stroller and created ANSYS simulations to quantify and illustrate problem area; results guided a high-level engineering task force

SKILLS

- **Software:** ANSYS, Solidworks, Inventor, ProE, CFX, Fusion, SketchBook
- **Machining:** welding, 3D printing, laser cutting, water jet, machine and wood shop
- **Sculpture:** glassblowing, metalworking, woodworking, kinetic sculpture, mold-making