## Daniel Casey Mechanical Engineer

**Specialties:** DFM (Sheet Metal, Injection Molding, Blow Molding), Surface Modeling, Prototyping **Design Software:** Solidworks, Fusion 360, Onshape, Illustrator **Prototype Fabrication:** 3D Printing, Laser Cutting, CNC Milling, MIG Welding, Woodshop **Certifications:** CSWP, Adult CPR/AED, Wilderness First Aid



Northeastern University BS in Mechanical Engineering (2016–2021) Minors: Graphic & Information Design, Experience Design Deans List: Fall 2016 | Spring 2017 | Fall 2017 | Fall 2018 | Fall 2020 GPA: 3.724 Activities: Generate (Product Design Club), NUHOC (Outdoors Club)



**Nikolas Weinstein Studios** Sculpture Fabricator (2023– ) Performed metalworking, assembly, and installation for large architectural sculptures Designed manufacturing tools, including principle drilling jig for 5-story sculpture Labored within production line of 400 unique stainless steel structural "spines" Gained experience with stainless steel, TIG welding, and wire rope systems



**Iron Ox** Junior Manufacturing Engineer (2021–2022) Supported development of novel hydroponic agricultural automation systems Assisted bring-up of flagship production facility in Lockhart, TX Sourced capital equipment and created visuals to illustrate workflow integration Designed custom horticultural equipment, worked with plant scientists to validate



## Burn Design Lab Mechanical Engineering Co-Op (2020)

Developed sheet metal and weldment shea nut roaster, for women's co-ops in Ghana Redesigned combustion chamber with novel sheet metal geometry for reduced parts Shifted to designing N95 Decontamination Chambers during COVID-19 Pandemic Manufactured 50 units for first responders alongside University of Washington team



## Essential Design Mechanical Engineering Co-Op (2019)

Collaborated with Industrial Designers to execute product engineering development Designed parts for die casting, sheet metal forming, and plastic injection molding Met audio client on-site to facilitate merging of PCB and mechanical components Supported other clients with early-stage conceptual prototyping work



**iRobot Corporation** Mechanical Engineering Co-Op (2018) Designed new filter testing fixture for overseas manufacturing plant Researched & prototyped new robot mobility solutions with special team Collaborated on CAD of educational classroom robot product Returned as part-time intern, to continue supporting educational robot