Dorotea Macri

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EDUCATION

University of California, Berkeley

Class of 2021
Declared Mechanical Engineering, B.S., Minor: Physics

SKILLS

Programming: Python, Java, MATLAB
CAD: SolidWorks, Autodesk Fusion 360, CATIA, Autodesk Eagle
Drafting and visual communication
Rapid prototyping: CAD, design for manufacturing, digital manufacturing, electronics prototyping

EXPERIENCE

The Boeing Company, Seattle, WA — *Engineering Intern*

May-August 2019
Designed and prototyped a structural mechanism for usability and space economy. Participated in materials process and development for a closed-loop green material. Implemented an image processing algorithm for image enhancement and feature detection.

CiTRiS Invention Lab, Berkeley, CA — *Superuser*

January 2019- Present
Assists students in a variety of disciplines with research, personal, and class projects involving design and prototyping. Holds an understanding of a wide range of rapid prototyping equipment and design practices. Trains students in safe and effective use of equipment and oversees safe use of lab space.

UC Berkeley College of Engineering, Berkeley, CA — *Course Reader*

January-May 2019
Graded assignments and exams, provided constructive feedback, and assisted the professor and graduate student instructor for Engineering 25: Visualization for Design, an introductory course offered to all engineering students and required of Mechanical Engineering majors.

Space Enterprise at Berkeley, Berkeley, CA — *Propulsion and Fabrication lead*

August 2018-May 2019
Lead research, design, and simulation of a liquid rocket engine for a sounding rocket. Taught safety protocols and manufacturing methods to new team members; organized and lead fabrication for a medium-scale sounding rocket.

RESEARCH

Laboratory for Emergent and Exploratory Devices (LEED)

August 2019 - Present
Participated in characterization of exploratory radiofrequency devices, including collecting and evaluating performance data, experimental setup and design.

Berkeley Engineering and Space Tensegrities (BEST) Lab

January 2019 - Present
Designed mechanical parts and systems and participated in testing for a tensegrity robot. Participated in design reviews and evaluated manufacturability, strength, and effectiveness of mechanical parts.

Inertial Storage and Recovery (INSTaR) Lab

January-December 2018
Manufactured and designed parts for a renewable-energy test vehicle. Evaluated materials, software, and design for various subsystems, including a mechanical drivetrain and battery pack with battery management system.