CHRISTINA SEGAR

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EDUCATION

FRANKLIN W. OLIN COLLEGE OF ENGINEERING (MAY 2020) **Needham, MA**
BS in Mechanical Engineering, Current GPA 3.76
Relevant Courses: Mechanical Prototyping, Fundamentals of Robotics, User-Oriented Collaborative Design, Mechanical Design, Affordable Design and Entrepreneurship, Powered Mobility Assistive Technology (Fall 2018 research)
Vrije Universiteit Amsterdam classes: Diversity 1, Diversity 2, Contemporary Social and Political Philosophy

EXPERIENCE

4moms **Pittsburgh, PA**
Mechanical Design Intern, innovative baby products *June 2019 – August 2019*
- Created solid and advanced surfacing CAD for new product designs and prototyped feasibility of new design ideas
- Ran quantitative tests to inform impact of design changes by measuring and analyzing current draw changes
- Worked with engineering and product design teams to design for optimal user-experience, cost, and safety

Carnegie Robotics, LLC **Pittsburgh, PA**
Mechanical Design Intern, Autonomous Mine Detection System (five-axis, mobile robot) *June 2018 – August 2018*
- Modified part designs to fix mechanical issues, reduce manufacturing cost, and improve system performance
- Designed complex CAD parts in use on current model including a cable-routing bracket to prevent motion failure

Olin Robotics Lab Research **Needham, MA**
Co-coordinator, Mechanical Lead *August 2016 – June 2018*
- Helped organize project thrusts, familiarize newcomers with lab, and bridge student-professor communications
- Created intricate CAD model of sub with accurate material properties for buoyancy analysis

Olin Course Assistant Positions **Needham, MA**
Design Nature (fall) and Introduction to Mechanical Prototyping (spring) *August 2017 – present*
- Provided constructive feedback to help students improve design of bio-inspired play experience
- Supported students in learning SolidWorks tools and translating conceptual design into kinetic mechanical sculptures

Rapid Prototyping *August 2017 – December 2018*
- Assisted SCOPE (Senior Capstone Project in Engineering) teams with 3D printer fabrication and post-print processes

Olin Robotics Lab Intelligent Vehicles Summer Research **Needham, MA**
Underwater Vehicles *June 2017 – August 2017*
- Created CAD and built actuated submarine system: https://tinyurl.com/NeptuneSub and https://tinyurl.com/PlutoSub
- Designed and tested modular 3D printed mounting systems and 3D printed component sealing techniques

Outside Contractor Support *June 2017 – August 2017*
- Helped design, build, and execute whale-simulator test for thermal imaging whale detection research on open water

FIRST Robotics Team 971 Spartan Robotics **Mountain View, CA**
Design Captain, Project Manager, Technical Presenter (2015-2016) *September 2012 – May 2016*
- Led CAD design, created subsystem CAD specializing in gearboxes, intake mechanisms, and manipulators
- Worked with carbon fiber to create custom parts, mold fabrication, layups, and post-cured modifications

SKILLS

- Mechanical Design – 7+ years working with SolidWorks in solids, surfaces, assemblies, drawings, and version control
- Machining and Prototyping – 3D printer, laser cutter, sheet metal tools, woodworking, carbon fiber composites
- Graphics and Communications – Adobe Illustrator, Adobe InDesign, Proficient in MS Word, Excel, and PowerPoint
- Languages – Intermediate in Java, Proficient in SQL, Beginner in Python and R