Sarah Jensen Southerland

CONTACT INFORMATION
5 Linnaean St #37
Cambridge MA, 02138
301.767.6188 | s.jensen.southerland@gmail.com
www.sjsoutherland.com

EDUCATION

Massachusetts Institute of Technology (MIT), Cambridge, MA — June 2013
Bachelor of Science in Mechanical Engineering and Architecture
Relevant Coursework: Design and Manufacturing, Product Design and Development, Product Engineering Mechanics and Materials, Thermo-Fluid Engineering, Dynamics and Control, Building Structural Systems I, Design Computation, Introduction to Python

SKILLS

Creo/Pro-E, Solid-Works, Rhino, Adobe CS (Photoshop, Illustrator, In Design), AutoDESK (CAD, 3dsMax), machine shop, laser cutter, woodworking, Python, Welding, MathCad, LabView

EXPERIENCE

BimiTech, Mechanical and Manufacturing Engineer, July 2016 – Present — San Jose, CA
Collaborating with international team to develop innovate biomimetic cooling device. Leading mechanical design, CAD modeling and DFM to develop product for market.

Microsoft, Mechanical Engineer, July 2012-July 2016 — Mountain View, CA
Designed electromechanical fixtures for Surface products as part of the Manufacturing Test Engineering team from initial concept to low volume fabrication. Collaborate with development, manufacturing teams, and vendors to design and implement fixtures deployed on the high-volume manufacturing line.

Elasticity, Geometry and Statics Lab, Research Assistant**,** Summer 2012 — Cambridge, MA
Conducted research to design and characterize a novel mechanism of actuation in soft shells for application in soft robotics. Collaborated to iterate existing design as well as design experimental set-up, write LabView program, and conduct experiments.

MIT Theater Arts Department, Scene Shop Assistant, Fall 2009 -January 2012 — Cambridge, MA
Collaborated to build numerous sets for stage productions, designed and built custom storage solutions for the shop, initiated and developed a new organization strategy for the storage of soft goods, and assisted to train and supervise introductory theater arts class students in the shop.

Baker-Wohl Architects, Architectural Intern, Summer 2011 — Boston, MA
Collaborated on schematic designs of a new facade for renovations of a burnt down Coast Guard boathouse on Martha's Vineyard. Collected and presented research on historic precedents as well as worked to balance historic requirements, functional needs, and modern aesthetics. Assessed and documented the as-built conditions of the windows and roofs of Marlborough School District's Middle and High Schools as well as prepared roof detail construction documents.

Israel Antiquity Authority, Intern, Summer 2010 — Akko, Israel
Conducted field research into typology of British Mandate residences in New City Akko, Israel, and developed new categorizations of period residential building typology. Prepared a final report and interactive map which is now a new standard for future research reports. Presented findings to local city officials as well as the Director of the Conservation Department. Collaborated with historic preservation architect to document current condition of a residence for historic status approval by the city.

Arlington Housing Corporation, Construction Management Intern, Summer 2008 — Arlington, VA
Organized the renovation of two roofs for low income households including coordinating contractors and communicating with the families. Supervised the completion of the final punch list for the company's recently built headquarters, including solving office sunlight issues, and developing a solution to the malfunctioning water attraction.

PROJECTS

Project Lead for SkyBeacon, Fall 2013: Led a team of 16 to design an innovative new rescue beacon for boats as part of a senior design capstone. Collaborated to design, build, and test successful first prototype which was presented at a final presentation to an audience of over 1000.

ExpandaBot, Spring 2013: Member of 4 person team which designed a robotic wheel which could change diameter and tread type based on the environment. Applications in variable terrain environment to avoid obstacles, improve traction, or increase clearance.

TupSaver, Spring 2013: Member of 6 person team comprised of engineers, industrial designers, MBAs and developed a fridge-based food tracker, container and accompanying app system to help manage food waste. Designed and built and programmed the electromechanical food tracker.

AWARDS

Chosen by Microsoft leadership to be part of the *OneLab* program. This internal program selected the top 1% of global employees companywide for yearlong leadership training.

2nd Place in the Design and Manufacturing class robotics competition