KATIE HAHM

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EDUCATION

9 / 2013 – present

Stanford University, Stanford, CA
Bachelor of Science: Mechanical Engineering, June 2017
GPA: 3.84

Relevant Coursework:
Thermodynamics, Manufacturing & Design, Fluids Engineering, Dynamics, Electronics, Solid Mechanics, Electronics, Probability and Statistics, Artificial Intelligence
(Winter Quarter: Aircraft and Rocket Propulsion, Heat Transfer, Fluid Mechanics)

EXPERIENCE

1 / 2016 – 6 / 2016

Engineering Design Intern, *NASA Ames' Electric Arc Shock Tube*, NASA Ames, CA
Design hardware for the electric arc shock tube using SolidWorks to support testing extreme speeds and pressure for different geometries

6 / 2015 – 8 / 2015

Research Assistant, *Biomimetics & Dexterous Manipulation Lab*, Stanford University, CA
Conducted research on "μTug", micro robots with gecko adhesives that pull up to 2000 times their weight. Manufactured 7 μTugs to demonstrate their capabilities by pulling a car. Built experimental setups and used MATLAB to process extensive data on relative load sharing capabilities of these μTugs and other small robots.

6 / 2015 – 8 / 2015

MicroFactory for Smart Manufacturing, *SRI International, BDML,* Stanford University, CA
Augmented and managed code for magnetically actuated microrobots that collaboratively build macro-scale high performance truss structures with carbon fiber rods. Code parsed CAD structures into robotic controls to add truss elements for more strength and stiffness.

PROJECTS

9 / 2015 - present

Rockets Manufacturing Team, *Stanford Space Initiative*, Stanford University, CA
Manufactured elements such as fins for the Lightening rocket project

9 / 2015 – 12 / 2015

Sitpack, *Manufacturing & Design*, Stanford University, CA
Combined milling, tube metal bending, and other processes to build a stylish and comfortable stool that can be disassembled to fit in a backpack.

2 / 2015

Bridge Project, *Solid Mechanics*, Stanford University, CA
Performed truss analysis to design and build a high specific strength model bridge from balsa wood with teammates. Modeled, tested and performed failure analysis on bridge

12 / 2014

Digit Recognizer, *Artificial Intelligence*, Stanford University, CA
Used multilayered perceptron, linear classifier, and autoencoder approaches to build an AI that recognizes single handwritten digits to 98.5% accuracy using the MNIST dataset

SKILLS & INTERESTS

Skills: SolidWorks, MATLAB, Arduino, Python, mill, lathe, sand-cast, weld, C, C++
Interests: aeronautics, robotics, transportation, product design, origami, violin, tennis

EXTRACURRICULAR

9 / 2014 – present

External Workshops Leader, *Stanford Design Initiative*, Stanford, CA
Organized and managed workshops about applications of design (graphics, web design).

9 / 2011 – 6 / 2013

Founder & President, *Origami Outreach Club*, Northwood High School, Irvine, CA
Taught origami to disabled students and senior citizens for fun physiotherapy, shared engineering applications of origami theories