

Sachin T. R. DeYoung

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OBJECTIVE

To use my multidisciplinary skill set to work in the fields of and contribute to aerospace and mechanical engineering.

EDUCATION

University of California, Berkeley — Berkeley, CA

Mechanical Engineering, expected graduation May 2019

Kansas State University (27 credits) — Manhattan, KS

Jan 2014 to May 2015, during high school

Cumulative GPA: 3.157 Technical GPA: 3.244

Coursework: Heat Transfer, Processing of Materials in Manufacturing, Vehicle Dynamics and Control, Feedback Control Systems, Introduction to Artificial Intelligence, Design of Microprocessor-Based Mechanical Systems, Dynamic Systems and Feedback, Fluid Dynamics, Engineering Mechanics (Dynamics), Thermodynamics, Solid Mechanics, Strength of Materials, Visualization for Design, Computer Programming for Engineers, Manufacturing and Tolerancing, Three-Dimensional Modeling for Design

SKILLS

Software: SOLIDWORKS (modeling, Finite Element Analysis), MATLAB/Simulink, ANSYS, Linux, Python, AutoCAD, L^AT_EX, LabView

Lab/Shop: Machining (lathe, milling machine, CNC, etc.), materials testing, GD&T, welding, heat treating, laser cutting, 3D printing

PREVIOUS EMPLOYMENT

Omron Adept Technologies — San Ramon, CA *NDA signed* Jun to Aug 2017 *and* May to Aug 2018

- Provided support in the design, construction and implementation of experiments that were focused on evaluating a given design or validating proposed engineering solutions in the fields of robotics and mechatronics.

Parks & Recreation Department — Manhattan, KS

- Lifeguard, 3 summers during and after high school.

Kansas State University — Manhattan, KS

- Kansas State University MATH 240 Differential Equations grader, 1 semester during high school.

PROJECTS

Berkeley Formula Racing (BFR) Chassis Lead, <http://fsae.berkeley.edu/> Fall 2015 to present

- Designed and built the B18 steel chassis.
- CAD and on-the-job experience designing, optimizing, and manufacturing the chassis.
- Participated in and assisted the team's effort in fSAE Lincoln 2017 and 2018.
- Leading transition to a carbon fiber monocoque chassis.
- Rebuilt and tuned the KTM single cylinder engine.

LABORATORY WORK

Computational Imaging Lab, Dr. Laura Waller, UC Berkeley, EECS Department May to Dec 2016

- Designed and developed coded illumination method to observe transparent biological cells without use of damaging color dyes.
- Demonstrated proof-of-concept inexpensively using an LCD screen, Raspberry Pi, and 3D printer.
- Presented findings at 2016 Rice University Gulf Coast Undergraduate Research Symposium, "Coded Illumination using a Pocket Picture Frame," S. DeYoung, Z. Phillips, and L. Waller (2016).

Multiphase Microfluidics Lab, Dr. Amy Betz, Kansas State U, MNE Department Aug 2013 to Aug 2015

- Fabricated apparatus to demonstrate liquid drop motion caused by the Leidenfrost effect.
- Designed a device to utilize this motion to convert thermal energy to electrical energy.
- Coded a micromilling machine; researched and applied material properties and circuitry.