Dana Lynn Lansigan

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Education

UNIVERSITY OF CALIFORNIA, BERKELEY | *Class of 2019*
GPA 3.937 | Bachelor of Science in Mechanical Engineering

Coursework: Engineering Mechanics II: Dynamics, Fluid Mechanics, Intro to Solid Mechanics, Information Devices and Systems, Prototyping and Fabrication, Intro to Computer Programming (Matlab), Intro to Manufacturing and Tolerancing, Three Dimensional Modeling (SolidWorks), Visualization for Design (AutoCAD)

Skills

Shop skills: woodwork, metalwork, 3D printing, laser cutting
Software: SolidWorks, ANSYS, VisualStudio, XFLR5, AutoCAD, Cura, Adobe Photoshop and Illustrator

Concepts: 3D visualization, numerical methods, manufacturing, tolerancing, statics and mechanics, prototyping
Languages: Matlab, HTML, CSS, jQuery, Python, C#

Experience/Affiliations

Empennage Co-Lead, Internal Affairs
Aero Design Society of Automotive Engineers (SAE)
September 2015 – Present

- Designed, modeled, and analyzed airplane tail using SolidWorks and XFLR5
- Employed woodworking and machine shop skills to construct model airplane
- Created and managed professional team website
- Spearheaded new member recruitment and training
- Placed fifth in flight at SAE West international competition

Undergraduate Researcher
Space Sciences Laboratory
University of California Berkeley
February 2017 – Present

- Assisted in mechanical design of testing rigs for the Keck Planet Finder spectrometer parts
- Modeled and performed analyses on parts and assemblies in SolidWorks

Undergraduate Researcher
Design for Nanomanufacturing Lab
University of California Berkeley
February 2016 – December 2016

- Prepared semiconductor chip samples and stamps using a spin coater and UV aligner
- Collected video data for nanoimprint lithography research using Matlab and Thorlabs components

Lab Assistant
Wind Tunnel Lab
University of California Irvine
May 2016 – August 2016

- Fabricated hot wire sensors with chemical lab equipment
- Operated wind tunnel at moderate Reynolds numbers to collect data for turbulence experiments
- Developed Matlab code for experiment data computations

Explorer Intern
Microsoft
Redmond, WA
May 2017 – August 2017

- Organized spec sheet to manage summer intern project
- Developed C# code to add virtual machine features to team's testing infrastructure

Projects

Fluid Visualization
March 2017

- Coded game to visualize pathlines in ocean currents
- Implemented using Matlab

Computational Analysis of Trusses
October 2016

- Developed numerical method of determining nodal displacements and stresses within a truss structure
- Implemented using Matlab

CalCase
May 2016

- Designed and manufactured a phone case that holds cards and a key ring
- Modeled with SolidWorks and 3D printed with Stratasys Objet printer
- Applied tolerances for desired fits derived from machinist's handbook

Awards & Honors

UC Berkeley College of Engineering Dean's Honors List *Fall 2015 - Present*

- Academic honor awarded to engineering students with a GPA in the top 10% of undergraduates in the College of Engineering

Boeing Scholars Scholarship *September 2016*

- Scholarship awarded to outstanding and passionate engineering undergraduates pursuing a career in aerospace