

Dana Lynn Lansigan

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY | *Class of 2019*

GPA 3.952 | Bachelor of Science in Mechanical Engineering

Coursework: Solid Mechanics*, Prototyping and Fabrication*, Intro to Computer Programming (Matlab), Manufacturing and Tolerancing, Three Dimensional Modeling (SolidWorks)*, Visualization for Design (AutoCAD)

* In Progress

SKILLS

Shop skills: woodwork, metalwork, 3D printing, laser cutting

Software: AutoCAD, SolidWorks, XFLR5, Cura, Adobe Photoshop and Illustrator

Concepts: 3D visualization, numerical methods, manufacturing, tolerancing, statics and mechanics, prototyping

Languages: Matlab, HTML, CSS, jQuery, Python

EXPERIENCE/AFFILIATIONS

Undergraduate Researcher

Design for Nanomanufacturing Lab
University of California Berkeley
February 2016 – Present

- ♦ 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

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 for competition
- ♦ Created and managed professional team website
- ♦ Spearheaded new member recruitment and training

Engineering Representative Intern

Pilipino Association of Scientists, Architects, and Engineers (PASAE)
September 2015 – May 2016

- ♦ Assisted in assembling monthly engineering newsletter for organization
- ♦ Facilitated numerous academic and cultural workshops for Filipino American students

PROJECTS

Computational Analysis of Trusses

October 2016

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

Orthoslap

December 2015

- ♦ Prototyped game designed to introduce students to multiview engineering drawings
- ♦ Modeled dice with SolidWorks and designed cards with AutoCAD

CalCase

May 2016

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

Band Transitions

May 2016

- ♦ Collaborated with teammates to conceive algorithm that optimizes marching band transitions
- ♦ Implemented using Matlab

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