Dana Lynn Lansigan

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Education

UNIVERSITY OF CALIFORNIA, BERKELEY | *Class of 2019*
GPA 3.965 | Bachelor of Science in Mechanical Engineering

Coursework: Engineering Mechanics II: Dynamics*, Fluid Mechanics*, Intro to Solid Mechanics, Information Devices and Systems*, Thermodynamics*, Prototyping and Fabrication, Intro to Computer Programming (Matlab), Intro to 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 – 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

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