

ARDAVAN AMINI

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EDUCATION

University of California, San Diego

M.S. in Mechanical Engineering

September 2016 – June 2017

Areas of Concentration: Design • Solid Mechanics

University of California, San Diego

Double Major: B.A. in Product Design • B.S. in Structural Engineering

August 2013 – June 2016

Areas of Concentration: Human-Centered Design • Civil Structures

Diablo Valley College

A.A. in Mathematics • Coursework in Mechanical & Materials Engineering

January 2011 – May 2013

Areas of Concentration: Mechanical & Materials Engineering • Renewable Energy

AWARDS & INVITATIONS

Von Liebig Center NSF I-CORPS Program and Funding, *UC San Diego*

October 2014 – March 2015

Invitation to Tau Beta Pi Honor Society, *UC San Diego*

September 2013

Academic Honors, *Diablo Valley College*

January 2011 – May 2013

RESEARCH EXPERIENCE

UC San Diego Jacobs School of Engineering

Research Assistant – Professor Hidenori Murakami

January 2014 – June 2017

- Power generation for gyroscopic wave energy converters
- Design of gyroscopic wave energy converter systems
- Design of a gyroscopically-driven biomimetic fish robot
- Supervising design of a gyroscopic ship stabilizer

PUBLICATIONS AND PAPERS

H. Murakami, O. Rios, and A. Amini. A Mathematical Model With Preliminary Experiments of a Gyroscopic Ocean Wave Energy Converter

- Paper accepted to the 2015 ASME International Mechanical Engineering Congress & Exposition [IMECE2015-51163]

RELATED EXPERIENCE

UC San Diego

Teaching Assistant

September 2016 – June 2017

TA for COGS 10 (Cognitive Consequences of Technology), DSGN 1 (Design of Everyday Things), and ENVR 30 (Environmental Issues: Natural Sciences). Duties include leading discussion/studio sections for ~60 students and grading

UCSD Mechanical & Aerospace Engineering Department

Undergraduate Reader (i.e. Grader)

October 2014 – June 2015

Grader for MAE 105 (Introduction to Mathematical Physics) and MAE 130B (Mechanics II: Dynamics)

Diablo Valley College Entrepreneurship Club

Head of Engineering

August 2012 – December 2012

Assisting groups in feasibility analysis for multiple products. Also, creating 3-D CAD models of products

Grid Alternatives, [Oakland, CA]

Solar Installation Volunteer

November 2012 – June 2013

Installing solar panels on homes of low-income families. Observing efficiency of installation and preparation processes

SKILLS

Computer Aided Design & Analysis

SolidWorks • OnShape • Inventor • AutoCAD • PTC Creo (Pro-Engineer) • ANSYS • FEMAP • Abaqus • Solid Edge

Programming

MATLAB • Java • Arduino • Python • HTML • JavaScript • CSS • LabVIEW • C++

Fabrication

Laser Cutting (LaserCAMM) • 3-D Printing • Rapid Prototyping • Water Jetting • CNC Machining • Woodworking

RELEVANT COURSEWORK

Product Design

Product Design & Entrepreneurship • Electronic Technologies for Art • Critical Design / Intermediate Studio • Product Marketing & Management • Systems Engineering • Finite Element Analysis • Introduction to Bioengineering Design • HCI Programming Studio • Introduction to HCI Design • Aesthetics • Conceptual Structural Design • Computer-Aided Analysis & Design • Introduction to Engineering Graphics & Design • Properties of Engineering Materials • Engineering Drawing

Mechanical Engineering

Finite Element Methods in Solid Mechanics I & II • Product Design & Entrepreneurship • Linear Control • Computer-Aided Analysis & Design • Introductory Fluid Mechanics • Signals & Systems • Mechanical Behavior of Materials • Introduction to Engineering Graphics & Design • Introduction to Mathematical Physics • Computational Methods for Engineering • Vibrations • Dynamics • Statics & Strength of Materials (i.e. Solid Mechanics) • Statics • Properties of Engineering Materials • Energy, Society, & the Environment • Computer Programming for Engineers Using MATLAB

LANGUAGES

English – Bilingual Proficiency

Farsi (Persian) – Bilingual Proficiency

PORTFOLIO

ardavanamini.com