

# Renn Darawali

renn.darawali@gmail.com | (415) 533-5439 | 1103 Woodlake Drive, Cardiff, CA 92007

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EDUCATION	<i>Master of Science, <b>Mechanical Engineering</b></i> University of California, San Diego	December 2016 GPA: 3.41/4.00
	<i>Bachelor of Science, <b>Environmental Engineering</b></i> University of California, San Diego	June 2015 GPA: 3.56/4.00
PROGRAMS AND SKILLS	<i>Programming:</i> Matlab, Python, LabVIEW, MySQL, Arduino, Qt <i>Modeling:</i> PVSyst, SolidWorks, ESRI ArcGIS, AutoCAD, Inventor <i>Operating Systems:</i> Windows, GNU Linux, MacOS	
EXPERIENCE	<b>Graduate Researcher, Coimbra Energy Group</b> Center for Energy Research, UCSD   La Jolla, CA	May 2014 - Present
	<ul style="list-style-type: none"><li>Analyzed machine learning based cloud classification methods derived from satellite imagery to be used in solar forecasting</li><li>Designed, prototyped, and field tested a low cost sun tracking sky imager on a single board computer (Beaglebone Black) using Python programming</li><li>Developed UI tools in Python for remote calibration and data acquisition from the sky imager over network protocols</li><li>Validated meteorological data from newly fabricated sensor networks using statistical analysis</li><li>Currently employing adapted solar forecast models onto single board computers for stand alone forecasting system</li></ul>	
	<b>R&amp;D Intern, Mechanical Engineering</b> Mytech Medical   La Jolla, CA	July 2016 - Present
	<ul style="list-style-type: none"><li>Improved process specifications and developed new tooling for manufacturing efficiency</li><li>Produced prototypes of catheter deployment systems and report design improvements</li><li>Troubleshoot manufacturing equipment and monitoring instrumentation</li></ul>	
PROJECT EXPERIENCE	<b>Teaching Assistant, Fundamentals of Engineering Application</b> Jacobs School of Engineering, UCSD   La Jolla, CA	July 2016 - August 2016
	<ul style="list-style-type: none"><li>Instructed 60+ freshman engineering students and introduce various engineering concepts (calculus, statistics, design) to create foundation for future academic success</li><li>Lead workshops on data analysis in Python and MATLAB, 3D modeling in SolidWorks</li><li>Developed term project to incorporate 3D modeling and printing, Arduino programming, and basic circuit elements.</li></ul>	
	<i>Portable Desalination Unit</i> Environmental Engineering Senior Design Laboratory, UCSD   La Jolla, CA	April 2015 - June 2015
	<ul style="list-style-type: none"><li>Designed a portable solar desalination system using an evacuated tube solar collector</li><li>Developed an Arduino Uno data logger to monitor temperature and irradiance data</li><li>Calculated thermal and performance efficiency of the prototype and modeled freshwater output</li></ul>	
ACTIVITIES AND AWARDS	<i>San Diego Topology and Native Plant Growth</i> GIS and GPS for Scientists, UCSD   La Jolla, CA	January 2015 - March 2015
	<ul style="list-style-type: none"><li>Mapped the effects of slope orientation on native California plant species</li><li>Generated kernel density maps to depict general coverage of plant species in ArcMap</li><li>3D Modeled topology of the Scripps Coastal Reserve using Digital Elevation Model data from LiDAR surveys</li></ul>	
	Undergraduate Student Leadership Award   Jacobs School of Engineering	June 2015
	Theta Tau, <i>Member</i>   Nationwide Professional Engineering Co-Ed Fraternity	May 2013