# Clayton Salinger Ketner

 $Mechanical\ Engineering\ {\it \& Computer}\ oxdet{Science}$ 

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## INTRODUCTION

Fifth year (of five) undergraduate Mechanical Engineering and Computer Science student with strong practical experience, close attention to detail, and an interest in robotics, design, and fabrication. Friendly and effective team leader able to quickly adapt to changing environments and technologies.

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	EDUCATION	
	Major: Mechanical Engineering, Minor: Computer Science	
Fall 2011 – Spring 2014	University of Southern California   GPA: [fall '13]: 3.71 – Graduate B.S. in May, 2014	
	Computer aided design (+FEA), linear control systems, dynamic systems, vibrations, advanced strength of materials, engineering algorithms, robotics algorithms, artificial intelligence	
Fall 2009 – Spring 2011	University of Massachusetts, Amherst   GPA: [major]: 3.58, [cumulative]: 3.47	
1 0	Transfer to USC – Statics, dynamics, strength of materials	
	EXPERIENCE	
Fall 2013 (4 Months)	Design of a Mechanical Governor – AME 408 Final Project – Managed team to design a rotating governor part, given deformation and natural frequency requirements using SolidWorks. Tags: LEADERSHIP   TEAMWORK   SOLIDWORKS   CAD   FEA – <u>more info on the class</u>	
Fall 2013 (4 Months)	Intro to Robotics — CSCI 445 — Learned localization (particle & Kalman filters), mapping (SLAM & FastSLAM), decision processes (MDP & POMDP), and sensor calibration and use.  Tags: ROBOTICS   ARDUINO   RASPBERRY PI   ALGORITHMS   SENSORS — <u>more info</u>	
Fall 2012 (4 Months)	Senior Project – Remote Inspection Vehicle – Remote control robot for the 2013 ASME design competition. Designed and built the controller. Coded and wired the controller and robot.  Tags: CAD   DESIGN   LEADERSHIP   CODE   WIRELESS   ROBOTICS – <u>more info</u>	
Summer 2012 (2 Months)	Robotic Arm – Designed, manufactured, wired, and coded independently and from scratch.  Tags: CAD   CNC   DESIGN   FABRICATION   CODE   MATLAB   ROBOTICS – <u>more info</u>	
Summer 2011	OSIsoft - Virtual Campus Intern (40 hr/wk)	

Summer 2011 (3 Months)

#### OSIsoft – Virtual Campus Intern (40 hr/wk)

- Independently researched & integrated OSIsoft PI System with SAS analytics.
- Gave two live progress presentations to the Virtual Campus team.
- Concluded findings in a White Paper posted to OSIsoft's vCampus website.
- Received praise from an outside company for quality of the White Paper.

### SKILLS

		$\bullet$ = 1 year of proficient use	
Engineering	SOLIDWORKS & SIM ●●●	SOLID EDGE <b>●</b>	PRO-E <b>●</b>
	LABVIEW ●	MATLAB ●●●	SIMULINK ●●
	TECHNICAL REPORTS ●●●	MECHATRONICS ●●◀	ROBOTICS ●●◀
Programming	JAVA & JUNIT ●●●	PYTHON ● <b>(</b>	C++ ●
	LATEX ●◀	CONCURRENCY (	GIT ●●
Miscellaneous	WORD & EXCEL ●●●●	COMMUNICATION ••••	LEADERSHIP ●●
	ORGANIZATION ●●●●●	RAPID PROTO ●●●	ELECTRONICS ●●◀

# AFFILIATIONS & AWARDS

2011 – Present Sigma Phi Delta – Professional Engineering Fraternity – (Fall 2013) House Manager & E–Board

2013 – Present  $\,$  SC Racing  $\,$  – Formula SAE Team (Chassis)

March 2012 Certified SolidWorks Associate - Score: 100%

2010 Dean's List