Clayton Salinger Ketner

Mechanical Engineering & Computer 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.

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

Advanced computer aided design (CAD + FEA), linear control systems, dynamic systems, vibrations, heat transfer, advanced strength of materials, engineering algorithms, robotics algorithms, artificial intelligence

Fall 2009 – Spring 2011

University of Massachusetts, Amherst | GPA: [major]: 3.58 – Transfer to USC

Statics, dynamics, strength of materials, thermodynamics

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 – *more info*

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 – *more info*

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 – *more info*

Summer 2012 (2 Months)

Robotic Arm – Designed, manufactured, wired, and coded independently and from scratch.
Tags: CAD | CNC | DESIGN | FABRICATION | CODE | MATLAB | ROBOTICS – *more info*

Summer 2011 (3 Months)

OSIsoft – Virtual Campus Intern (40 hr/wk)

- Independently researched and 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

● = 1 year of proficient use

Engineering	SOLIDWORKS & SIM ●●●	SOLID EDGE ◖	PRO-E ◖	TECHNICAL REPORTS ●●●
	LABVIEW ●	MATLAB & SIMULINK ●●●	MATHEMATICA ●	CONTROL SYSTEMS ●●
Hands-On	HAND TOOLS ●●●●●	MECHATRONICS ●●◖	ROBOTICS ●●◖	ELECTRONICS PROTO ●●◖
	3D PRINTING ◖	CNC MILL/ROUTER ◖	MACHINE SHOP ●●	
Programming	JAVA & JUNIT ●●●	PYTHON ●◖	C++ ●	LATEX ●◖
	UI & UX ●	WEB DEVELOPMENT ◖		
Miscellaneous	WORD & EXCEL ●●●◖	COMMUNICATION ●●●●●	LEADERSHIP ●●	

AFFILIATIONS & AWARDS

2011 – Present **Sigma Phi Delta** – Professional Engineering Fraternity – Active member
– (Fall 2013) House Manager & Executive Board Member

2014 – Present **USC Aerial Robotics Team** – Mechanical team

Fall 2013 **Dean's List** (USC)
Spring 2010 **Dean's List** (UMass)

March 2012 **Certified SolidWorks Associate** – Score: 100%