

Kaden Strand

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Colorado State University Coursework *Anticipated Graduation Date: May 2016*

Education Summary: Senior studying in the Honors Program at Colorado State University, pursuing dual degrees in Computer Engineering and Computer Science, completed Mathematics minor; GPA: 3.87

Select Coursework:

Computer Science & Math

- CS 510 - Image Computation & Computer Vision (*graduate level*)
- CS 410 - Intro to Computer Graphics
- CS 420 - Analysis of Algorithms
- CS 480 - Intro to Machine Learning
- Math 369 - Linear Algebra

Electrical & Computer Engineering

- CS/ECE 561 - Design of Embedded Systems (*graduate level*)
- ECE 456 - Computer Networks
- ECE 451 - Digital System Design
- ECE 452 - Computer Organization and Architecture
- ECE 311, 312 - Linear Systems Analysis I & II

Work Experience



StoreVirtual Test Intern – HP Enterprise 6/8/2015 to 8/14/2015

As a Test Intern on the HP StoreVirtual Test team, I engineered and conducted initial implementation of a new factory reset process for the next generation of StoreVirtual hyper-converged systems. In addition, I rapidly learned a particular build process and functioned as interim lead engineer for that process.



Software Engineer Intern – Bounce Software 10/18/2013 to 8/22/2014

Bounce Software is a small custom software solutions company consisting of fewer than ten people. As a member of the Bounce team I worked on all aspects of product development. I met with clients, created mock-ups of potential products, designed software features, wrote production code, and researched new software methods. Most of our work was in developing web based applications using the Google Web Toolkit (GWT) Java API libraries.



Software Engineer Intern – Ricoh 5/20/2013 to 8/16/2013

As a Software Engineer Intern for Ricoh, I worked on two projects in Ricoh's testing automation lab. The first was a web app designed to transfer command line functionality to a visual interface. I wrote both the server-side and client-side code for the project. The second was a controller program to increase automation and efficiency of test distribution across all of the lab computers. These projects gave me experience with Linux, Python, multiprocessing, socket handling, distributed systems, and programming in a professional environment.

Major Projects



EcoCar3 Advanced Vehicle Technology Competition – Senior Design Project (Controls Team)

For my senior design project, I am currently working with a cross-disciplinary team of ECE students and mechanical engineering students to develop the controls system for the EcoCar3 competition. CSU is among 16 universities competing to develop the best performing and most environmentally friendly hybrid electric vehicle possible. Our team is using MATLAB and Simulink to develop algorithms to control hybrid drivetrains and integrate our work into a 2016 Chevrolet Camaro donated by GM.



Project Wolf Eye – Year-Long Design Project

As part of an ECE senior design team, I worked with Wolf Robotics to create and implement an efficient, repeatable, and automated method to accurately calibrate a robotic arm in three dimensional space using a laser distance sensor. I worked directly on an ABB six-axis robotic arm at Wolf using the RAPID programming language. Wolf Robotics incorporated our team's calibration method into industrial welding systems to improve the process of detecting weld features.



Voice-Enabled System for Power Allocation (VESPA) – Semester Project ECE 561 (Embedded Systems)

The VESPA system allows home wall sockets to be naturally controlled by voice, without any dependency on mobile devices, radio technology, or the internet. By utilizing a Raspberry Pi computer to interpret voice commands relayed by a modified AC wall intercom system, each device plugged into the VESPA wall sockets can be powered on or off from any other connected device simply by speaking.

Programming Languages & Technical Skills

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|----------|------------------------|---------------------|---------------------|
| - Java | - Assembly (MIPS, | - Verilog HDL | - Bash & PowerShell |
| - Python | FreeScale 68HC12) | - SystemC | - HTML/CSS |
| - C, C++ | - RAPID (ABB Robotics) | - MATLAB / Simulink | - MySQL |