# Jeremy Castagno

Memphis, TN

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<u>http://jeremybyu.github.io/aboutme/</u>

## Education

Major: Chemical Engineering, GPA: 3.76 Minors: Computer Science, Mathematics Brigham Young University – Provo, Utah Graduation Date: April 2013

## Work Experience

#### Process Control Engineer, Valero Energy, Memphis, TN

- Control systems support for operation of multiple process units in refinery.
- Reviewed and verified several safety systems through simulation and creation of detailed test plans.
- Assisted design and implementation of gasoline blending control system upgrade. Incorporated advanced process control with an estimated savings of 2 MM/yr.
- Increased reliability of H<sub>2</sub> Processing Plant with a savings of 400K/yr. by identifying and replacing faulty instrumentation.

### PRISM Research Group, BYU College of Engineering, Provo, UT

- Co-author of a paper published in ITAE demonstrating the feasibility of real time moving horizon parameter estimation and the tradeoffs between model complexity and model accuracy.
- Developed and implemented real-time mixed integer non-linear control of a laboratory benchmark system utilizing Matlab and a custom built C++ interface.

#### Economics & Process Optimization Intern, Valero Headquarters, San Antonio, TX

- Performed a thorough engineering statistical analysis of corporate gasoline blend models.
- Analyzed large datasets and presented findings to executive leadership in easy to understand format.
- Identified weaknesses and implemented improvements resulting in a 50% increase in accuracy of the T50 w/ethanol model.

### **Volunteer Experience**

#### Volunteer Tutor, Memphis, TN

Assisted several students in their educational pursuits; high school/college math & chemistry

#### Study Abroad for "Engineers without Borders", Cusco, Peru

- Organized a multi-discipline engineering team creating low cost water filters.
- Designed, created, and distributed multiple engineering projects in rural villages.

#### Representative for The Church of Jesus Christ of Latter-day Saints, India

- Taught and directed English classes of size 25+ and adapted lesson plans.
- Lived a service oriented life for two years assisting the community.

## Skills

Programming Languages:

C, C++, Python, Java, C#, VBA, SQL, JavaScript

**OS/Software Proficiency:** Linux Servers, Windows Servers, Microsoft Office

8/12-4/13

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5/13-10/15

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