

# Jeremy Castagno

Memphis, TN

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## 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**

**5/13-Present**

- ♦ 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.
- ♦ Design and implementation of gasoline blending control system upgrade. Incorporated advanced process control with an estimated savings of 2 MM/yr.
- ♦ Increased reliability of H2 Processing Plant with a savings of 400K/yr. by identifying and replacing faulty instrumentation.

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

**8/12-4/12**

- ♦ 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**

**5/12-8/12**

- ♦ 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

**Study Abroad for “Engineers without Borders”, Cusco, Peru**

**4/12-5/12**

- ♦ 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**

**7/08-7/10**

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

## Skills

### Programming Languages:

C, C++, Python, Java, C#, VBA, SQL, JavaScript  
VB, DOS, HTML, PLC Ladder-Logic

### OS/Software Proficiency:

Linux Servers, Windows Servers, Excel/VBA, MATLAB,  
AspenTech, Lab Workbench, MathCAD, LabVIEW, PI,  
Honeywell Experion, APACS, Triconex TRIGP