

Andrew Cross • www.agcross.com • (316)-200-1161 • andrewgcross@gmail.com

Current Address: Available upon request.

PROFILE

Adaptable and personable, I'm always open to challenging opportunities that allow me to utilize my unique mechanical and analytical skillset, while collaborating with other talented and motivated people.

WORK EXPERIENCE

Design Engineer – Rocky Research – Boulder City, NV **9/15 – Present**

- Responsible for system design, solid modeling, purchasing, and production management of automated machinery capable of passing MIL-STD-810G
- Coordinated the design/build of a 40kW diesel burner for warming fluids in mobile applications

Research Engineer – Center for Energy Research – Las Vegas, NV **8/14 – 7/15**

- Modeled the thermal response of multi-zone buildings with EnergyPlus to facilitate the development of new temperature/energy control strategies
- Wrote Python code for data analysis and numerical modeling of residential energy consumption
- Applied multiple machine learning techniques to HVAC controllers and quantified their efficacy
- Contributed to writing federal grant-based progress/final reports

Graduate Researcher – Center for Energy Research – Las Vegas, NV **1/13 – 7/14**

- Developed field-implemented multi-objective optimization algorithms to strategically shift peak demand-side energy consumption for a housing development in the Las Vegas valley
- Designed, and published, a comprehensive multi-controller system to integrate a solar thermal collection system, hydronic heated floor, and mini-splits in a multi-zone environment

Product Engineer – Pentair Engineered Flow – Kansas City, KS **3/10 – 8/12**

- Performed research that formed the basis for a section of the ANSI/HI 9.8 Pump Standards
- Developed integrated software to automatically generate hydraulic curves for the entire product line, based on up-to-the-minute empirical data from the test floor
- Concurrently managed multiple projects, each in excess of \$1,000,000
- Requisitioned materials, created BOMs, and issued work orders in support of assigned projects

EDUCATION/CERTIFICATIONS

The University of Nevada, Las Vegas / Las Vegas, NV **8/12 – 7/14**
MS, Mechanical Engineering (*thesis option*)

The University of Kansas / Lawrence, KS **8/05 – 5/09**
BS, Mechanical Engineering

EIT/ FE Certification, Kansas State Board of Technical Professions **4/08**

Certified SolidWorks Professional (ID: C-FRM75VCHPR) **3/11**