

Isaac Patrick West

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OBJECTIVE To advance technical knowledge as an EDP through plant experience in Global Operations.

EDUCATION **Purdue University, B.S.M.E.**, May 2007
School of Mechanical Engineering, West Lafayette, IN
Significant Course Work: Machine Design, Vibrations, Automatic Controls, Formula SAE

WORK EXPERIENCE **Project Engineer**, Western Area Electronics
Air Products and Chemicals, Santa Clara, CA
July 2008 to present

- Manage projects for on-site customer bulk gas supply systems, including the installation, maintenance, and upgrading of cryogenic and gas supply systems for the electronics industry.
- Work with technicians and customers to perform repairs and upgrades on bulk systems with minimal down time, while maintaining high purity standards. Includes development of work instructions with technician feedback.
- Trained technicians on the basics of how liquid bulk cryogenic systems operate.
- Studied the feasibility of utilizing solar power at air separation plants based on government and utility incentives.

Equipment and Project Engineer, Instrumentation and Equipment Technology
Air Products and Chemicals, Allentown, PA
July 2007 to June 2008

- Key member in the mechanical development, review, and fabrication of a xenon gas recovery system for semiconductor fabs, which will result in large profit capability through the recapture of xenon gas. XeCovery is now offered as a product line.
- Developed a cryogenic helium accumulator from concept sketch to working prototype, resulting in satisfactory on time delivery of a new product within the quoted budget.
- Lead mechanical engineer for a sour gas PSA/TSA research unit. In charge of mechanical estimates, project proposal, calculations, and vendor communication, as well as P&ID development and revisions.
- Designed, fabricated, and implemented a nitrogen purge box panel system based on room ventilation requirements, resulting in a reduced chance for an asphyxiation hazard.
- Presented on relief valve basics to the AP Technology community, resulting in better understanding of relief valve operation and the sizing/calculation process.

CO-OP AND INTERNSHIP EXPERIENCE **Engine Reliability Intern**
International Truck and Engine Corporation, Melrose Park, IL
June-August 2006

- Analyzed fleet vehicle data to determine effectiveness of proactive warranty actions in the field
- Designed training kits used to teach dealer service technicians troubleshooting methods to reduce warranty costs

Co-op Engineer**Tenneco**, Grass Lake, MI

May-Aug 2003, Jan-May 2004, and Aug-Dec 2004

- Studied muffler valve response at high temperatures resulted in SAE paper (2006-01-1373) at 2006 World Congress
- Studied pressure distribution of manufacturing processes on catalytic converters
- Performed NVH testing (modal, hanger force) and analysis using LMS equipment
- Performed flow analysis of emission control products, experimental and analytical
- Installed and calibrated strain gauges and accelerometers
- Assisted in calibration, setup, and building of prototype catalytic converters, diesel oxidation catalysts, and diesel particulate filters

Metallurgical Assistant**Federal Mogul Technical Center**, Ann Arbor, MI

May 2001-April 2002

- Prepared samples and performed tests for metallurgical evaluations
- Assisted in production of powdered metals, and strip sintering for development of new alloys

SKILLS

- Understanding of cryogenic and high pressure bulk gas systems, as well as high purity systems
- Understanding of the ASME Boiler and Pressure Vessel Code
- Detailed knowledge of pressure relief valve and rupture disc sizing
- Experience in project proposal development, bidding, and quotes, as well as project management and budget tracking
- Communication between engineering and fabricators/vendors
- CAD experience (ProE, CATIA, SolidWorks, AutoCAD, Visio)
- Fabrication skills (welding, machining, mechanical repair)

ACTIVITIES

Rock climbing

Hiking and backpacking

Motorcycling – Dirt biking, sport touring

Mountain biking

Photographer (www.isaacwest.com)

Experience with working on cars (engine swaps, turbocharger installation, suspension)

Purdue Formula SAE Alumni