

Devan Elizabeth Kestel

18426 Wimbledon Ct., Clinton Twp., MI 48038 • Devan.Kestel@gmail.com • 617.233.2629

Education

- May 2010 **UNIVERSITY OF NOTRE DAME DU LAC**
M.S. IN CHEMICAL AND BIOMOLECULAR ENGINEERING
Thermodynamic Research of Ionic Liquids Group
- June 2007 **MASSACHUSETTS INSTITUTE OF TECHNOLOGY**
B.S. IN CHEMICAL ENGINEERING, MINOR IN SPANISH
- Spring 2006 **UNIVERSIDAD COMPLUTENSE DE MADRID**
UNIVERSIDAD POLITÉCNICA DE MADRID
Through MIT-Madrid Study Abroad Program
Study of both engineering and humanities in Spanish

Experience

- February 2011 - Present
Mt. Clemens, MI
- DUPONT PERFORMANCE COATINGS
(NOW AXALTA COATINGS SYSTEMS)**
CHEMICAL ENGINEER
- Product formulation, optimization, and technical support of solventborne and waterborne automotive coatings for General Motors accounts with revenue exceeding \$30MM annually.
 - Optimized, commercialized, and launched a two-component, polyurethane clearcoat system which delivered \$800M revenue growth in 2012.
 - Developed new rheology test method with optimized shear profile, reducing error in measurement by 50%, for non-Newtonian solventborne paint systems.
 - Technical lead for innovative spray process and paint technology conversion program which minimized assembly line downtime by 50% over conventional conversion.
 - Provided support to Arlington Assembly, GM's most profitable manufacturing site, via new color development, formulation adjustments, and troubleshooting line issues (2011 - 2013). Currently provide support to Bowling Green Assembly, home of the Corvette.
 - In addition to research and development, interface with manufacturing, quality assurance, sales and marketing, product stewardship, and field account teams on a daily basis.
 - Work in a high-pressured, multi-tasking environment with constantly changing priorities and frequently required to make "on the spot" decisions that directly impact manufacturing at both Axalta and GM sites.
 - Align formulas, manufacturing procedures, and product design specifications for manufacturing scale-up.
 - Serve on site team of internal quality auditors. Audit 6 areas per year against ISO:9001 and TS-16949 standards. Interview exempt and non-exempt employees across all shifts.
- October 2007 - March 2010
Notre Dame, IN
- UNIVERSITY OF NOTRE DAME DU LAC**
GRADUATE RESEARCH ASSISTANT
- Thermophysical property measurement and estimation of ionic liquid systems for use as environmentally benign working fluids for carbon dioxide capture.
 - Worked in a hybrid experimental and computational team to rapidly screen and characterize candidate ionic liquids for process optima including: relative volatility and solubility, hydrophobicity, corrosivity, toxicity, reaction and absorption enthalpies, and others properties relevant to process scale-up.
 - Gravimetric measurement of binary vapor-liquid equilibrium curves of ionic liquids with components in flue gas (e.g. CO₂, CH₄, H₂O) as well as N₂O.

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Experience

October 2007 - March 2010
Notre Dame, IN

UNIVERSITY OF NOTRE DAME DU LAC

GRADUATE RESEARCH ASSISTANT

- Analyzed and calculated hysteresis, infinite dilution activity coefficients, Henry's Law constants, and deconvolution of physical CO₂ solubility from chemical CO₂ reaction in amine-functionalized ionic liquid systems.
- Supervised design and construction of ionic liquid absorber/ stripper unit.
- Proficient with both high and low pressure systems.

Summers 2004, 2005, 2006
Nicholasville, KY

ALLTECH, INC.

CHEMICAL ENGINEERING INTERN

- Product development, process design, and pilot plant management for Optigen, a controlled-release, non-protein nitrogen supplement for dairy cattle which is now commercialized.
- Facilitated formulation of controlled-release coating.
- Authored process flow diagrams. Collaborated on design of specialized fluidized bed dryer. Designated process instrumentation for final scale-up.
- Supervised 3-4 production workers per shift in pilot plant operations.
- Designed and formulated a novel filtration system capable of 100% toxin removal from contaminated liquids.
- Bottled beer (KY Ale, KY Light, KY Bourbon Barrel Ale) at company microbrewery.

Volunteer

July 2009 - November 2011

LEAKYCON

DIRECTOR OF MEDIA AND COMMUNICATIONS

LeakyCon is a fan convention focusing on young adult literature, including Harry Potter and other related communities. Programming contains academic and informal aspects, with content ranging from book publisher and author panels to nighttime concerts and dance parties. The 2011 convention donated \$120M of proceeds to charity organizations.

- Co-directed planning and execution of a five day convention with 3400 attendees at Universal's Royal Pacific Hotel in Orlando, FL.
- Edited and approved official content including social media, publicity, announcements, website, and programming guide.
- Managed and mentored a team of 25 individuals in the areas of branding, design, customer service, website and app coding, and content.
- Mediated and facilitated resolution of interpersonal issues between team members.

Proficiencies

PROGRAMMING

SOFTWARE

CERTIFICATIONS

MATLAB, Python, C++, JavaScript, JQuery, CSS, HTML

ASPEN Engineering Suite, Minitab, ABACUSS, MS Office, SAP R2

Six Sigma Greenbelt, RABQSA Certified ISO 9001:2008 Lead Quality Auditor Trained, Certified Beer Server by the Cicerone Program

Work Style

MBTI

STRENGTHS FINDER

OTHER DESCRIPTORS

Extroverted Intuitive Thinking Judging

Relator, Learner, Individualization, Strategic, Command

Straightforward, Results-oriented, Theoretical, Articulate, Determined, Planful, Thorough