

KENNETH M. LEE

ADDRESS: 5111-C Inker St, Houston, TX 77007-3335 – 703-727-7012 – kenlee@alumni.princeton.edu

OBJECTIVE: A challenging management position continuing management growth opportunities

INDUSTRIAL Technical Section Supervisor: ExxonMobil Chemicals: Baytown Polypropylene

EXPERIENCE: *May 2007-Present – Baytown, TX 77520*

- Managing 9 engineers to support and improve the operations of ExxonMobil's most complex PP plant
- Stewarded development of a number of new products and technologies
- Developing and instituting systems to sustainably improve the plant's reliability
- Leading and coordinating business interactions at the plant and with the headquarters organization

Process Contact Engineer: ExxonMobil Chemicals: Baytown Chemical Plant

September 2006-April 2007 – Baytown, TX 77520

- Led technical and capital improvements to improve the plant's Syngas Unit to best in industry operation
- Led operational stage of unit debottleneck project and proved record single train production rates
- Resolved ongoing contract issues around intermediate product specification saving ~\$3M/yr

Senior Engineer: ExxonMobil Research and Engineering

August 2004-August 2006 – Fairfax, VA 22037

- Led completion of process design basis for a unique implementation of a novel solids drying technology
- Designed and implemented experiments and simulation systems to predict commercial operation
- Led interface with laboratories and process design groups to complete the design basis specification

Advanced Engineer: ExxonMobil Research and Engineering

July 2003-July 2004 – Fairfax, VA 22037

- Developed model to simulate transport of high and low viscosity oils through membranes
- Led technology platform analysis to align the research team on the prevailing theories
- Designed advanced separation technology for affiliate refineries worldwide

Product Research Engineering Intern: ExxonMobil Chemicals: Baton Rouge Polyolefins Plant

Summer 2000 – Baton Rouge, LA 70807

- Developed a low permeability blend of high-density polyethylene for low emission fuel tanks
- Prepared and performed an experimental regiment to determine product feasibility of the new blend
- Analyzed oxygen sources within a plant to enhance plant-wide product quality

Project Engineering Intern: Exxon Research and Engineering Company

Summer 1999 – Florham Park, NJ 07932

- Converted a process unit design simulation to use Simsci's PRO/II simulation engine
- Documented method for converting large libraries of proprietary simulations to PRO/II
- Created process templates to aid in design of alkylation units

Application Engineering Intern: Exxon Research and Engineering Company

Summer 1998 – Florham Park, NJ 07932

- Implemented an environmental monitoring computer application to track emissions for a large oil refinery
- Designed a user interface for monitoring system to allow plant operators to easily use application
- Revised heavily used simulation code to enhance reliability

Reservoir Engineering Intern: Exxon Company USA: Houston Production Organization

Summer 1997 – Houston, TX 77090

- Evaluated long-term economic feasibility of flow line consolidation in a large oil field
- Identified underutilized metering sites as possible consolidation candidates

Process Engineering Intern: Exxon Research and Engineering Company

Summer 1996, Summer 1995, Summer 1994 – Florham Park, NJ 07932

- Developed a system to efficiently evaluate reactor design and performance
- Evaluated and compared effectiveness of two competing reactor designs
- Created a tool to automate examination of reactor design and process conditions
- Developed a database of reactor design specifications to facilitate reactor design and evaluation
- Revised computer tools for efficient performance on new computer systems

RESEARCH & THE UNIVERSITY OF TEXAS AT AUSTIN: Austin, TX 78712 – 1999-2003

EDUCATION: Doctor of Philosophy in Chemical Engineering

Overall GPA 3.8/4.0

Advising Professor: Dr. Isaac C. Sanchez

Dissertation Title: Exploring Solvent Properties of High Pressure Carbon Dioxide via Computer Simulation

Research investigated:

- Sorption of carbon dioxide on surfaces and into polymer thin films
- Effect of solvent choice on conformation of polymers
- Solubility of small molecules, especially differences of alkanes and fluoro-alkanes, in carbon dioxide

PRINCETON UNIVERSITY: Princeton, NJ 08544 – 1995-1999

Bachelor of Science and Engineering in Chemical Engineering, 1999

Certificate in Material Science and Engineering

Overall GPA 3.1/4.0, Major GPA 3.3/4.0 – GRE: Math 750, Analytical 710

Senior Thesis Title: A Computational Investigation of Triangle Statistics in the Rigid Disk System

RELEVANT COURSES INCLUDE: (★ Denotes Graduate Course)

Thermodynamics	Polymer Science and Engineering★
Chemical Reaction Engineering	Statistical Thermodynamics of Polymers★
Fluid Dynamics	Industrial Chemical Processes★
Process Design	Statistical Mechanics★
Process Control	Molecular Thermodynamics★
Physical Chemistry	Quantum Mechanics★
Organic Chemistry	Mass Transfer★
	Advanced Analysis★

ACADEMIC Graduate Research Assistant: Department of Chemical Engineering

EXPERIENCE: September 1999-May 2003 – *The University of Texas at Austin*

- Created a set of simulations to answer questions important to industry and academia
- Develop and run highly optimized Monte Carlo molecular simulations in C++
- Collaborate with researchers in Texas, North Carolina and Mexico
- Maintain research group's computational facilities
- Recruit graduate students at professional conferences

Vice President: Graduate Engineering Council

January 2002-April 2003 – *The University of Texas at Austin*

- Manage operations of the council, progress of committees, and preside over executive committee meetings
- Sit as a senator for the Senate of College Councils
- Represent graduates at weekly meetings with the dean of engineering
- Redesigned the organization's web page to better serve the needs of graduate engineers
- Organized programs to orient new graduate students to the engineering college

Teaching Assistant for Plant Design: Department of Chemical Engineering

January 2000-May 2000; January 2001-May-2001 – *The University of Texas at Austin*

- Instructed 60 students per semester in the use of AspenTech's Aspen Plus
- Advised students in the proper creation of their designs
- Assisted supervising professor in creating course project
- Evaluated students written and oral presentations of the design project

President: Princeton University Band

November 1997-November 1998 – *Princeton University*

- Managed 100-member band and the duties of the other 11 officers
- Established the rehearsal and performance schedule
- Interfaced with university administration regarding facilities and perception

Also: Texas Material Institute, American Institute of Chemical Engineers (AIChE), National Society of Black Engineers (NSBE), Church Audio/Visual Team, Young Adult Bible Study, Princeton University Triangle Club, Princeton University Players, Hallelujah! Worship Committee

AWARDS: National Science Foundation Honorable Mention, GEM Fellowship, College of Engineering Thrust 2000 Fellowship, AIChE Janice Lumpkin Award, National Dean's List, Exxon Technical Scholarship

SKILLS: **Operating Systems:** Windows 95/98/NT/2000/XP, Macintosh, DOS, UNIX, X-Windows, VMS/CMS
 Applications: Aspen Plus, Simsci Pro/II, Access, Excel, Word, PowerPoint, PhotoShop, Illustrator
 Programming Languages: C/C++, Fortran, Visual Basic, Perl, Mathematica, Postscript, Latex, HTML, CGI
 Interpersonal: Group building, management, leadership, teaching

INTERESTS: Music, computers, theater, general repair, billiards, hiking/biking, graphic arts, web design

STATUS: Availability: July 2003
 Employability: US Citizen