Abhishek Bali

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OBJECTIVE

To secure a position within Chemical Engineering in a well-established organization that will lead to a lasting relationship offering an opportunity to contribute, while growing professionally.

EDUCATION

B.S., Chemical Engineering **August 2014**
School of Engineering, Rutgers University, New Brunswick, NJ Major GPA: 3.25

PROJECT WORK

"Methanol Oxidation to Produce Acetic Acid," Team Leader, Design and Economics Fall 2013 - Spring 2014

- Modeled a chemical plant on ASPEN Plus that utilizes methane to produce acetic acid and electricity
- Reactor design, separation processes such as cryogenic distillation, heat recovery steam generation cycles and refrigeration cycles were built via Aspen Plus software
- Packed Bed Reactors, distillation columns, heat exchangers, turbines, compressors, liquid-liquid extraction and decanters were some of the blocks used
- Modeled plant was analyzed economically to maximize profitability

"Liquid Level Control," Process Control Spring 2014

- Labview software was used to analyze liquid height and PID control
- Matlab software was utilized to assist in obtaining valve coefficient and rangeability
- Varied liquid flow via valves and air flow via pneumatic valves
- Presented results to a panel of judges

"Falling Film Evaporator," Process Control Spring 2014

- Purified various mixtures of Ethanol and Water using the Falling Film Evaporator apparatus
- Monitored and varied temperature, liquid flow via valves and pressure via pumps
- Organized, analyzed, and presented results to interdepartmental committees

"Air Separation Unit," Design and Economics Spring 2014

- Aspen Plus software was used to design an Air Separation Unit
- Modeled a series of heat exchangers and cryogenic distillation columns to cool various streams and heat up others
- Achieved high recovery of oxygen using multiple heat exchangers and distillation columns
- Presented results to a panel of judges

EXPERIENCE

New Jersey City University, Intern, Applied Research July 2007 - June 2008

- Synthesis and Purification of Microwave-Assisted Petasis Reaction to create substituted amines
- Used multiple purification techniques such as Flash Chromatography, crystallization, and TLC
- Presented results to a panel of judges

SKILLS

- Strong communication, problem-solving, and leadership skills
- Bilingual: English and Hindi
- Proficient in Aspen Plus, ChemCAD, Matlab, and Microsoft Office Programs
- Experience with MS, IR, NMR, GCMS, HPLC, Flash Chromatography, Thin-Layer Chromatography, and Preparatory Thin-Layer Chromatography

ACTIVITIES/ACHIEVEMENTS

- Member of the American Institute of Chemical Engineers Fall 2012 – Present
- Deans List Spring 2014
- Involved in the following community service projects: Breast Cancer Walk, Hoboken Sandy Relief Effort, Volunteer for week long rebuild project in Asbury Park, NJ