

Alishan K. Kaisani

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OBJECTIVE

To obtain a summer 2018 internship that will allow me to apply skills in chemical engineering and computer science

EDUCATION

Georgia Institute of Technology, Atlanta GA

Expected Graduation: May 2019

Major: Chemical and Biomolecular Engineering (Bachelors)

GPA: 3.65

Minor: Computer Science (Information and Internetworks thread)

RESEARCH EXPERIENCE

Georgia Tech Hess Group Laboratory, Atlanta GA

Aug 2017 – Present

Undergraduate Research Assistant

- Investigate thin film coating processes related to surface modification of materials for electronics applications
- Lead a study on the influence of color-dyes on solid-liquid contact angle in surface modification experiments
- Design experimental methods and collect contact angle data of dyed liquids on superhydrophobic surfaces

Georgia Tech Vertically Integrated Projects – BeeSnap, Atlanta GA

Jan 2017 – Present

Team Researcher

- Interact with team members of various majors in weekly meetings and breakout sessions to combine expertise
- Contributed to Agile Development of educational web-app on collecting big-data about bee-flower interactions
- Designed user-interface (HTML/CSS) and integrated camera functionality (JavaScript – Angular/Node.js)
- Created and connected a database (mariadb/SQL) on Georgia Tech servers to the web application
- Lead team in new direction by mentoring new members and distributing duties among team

PROFESSIONAL EXPERIENCE

Comprehensive Business Accounting, Norcross GA

May 2016 – Aug 2016

Administrative Assistant

- Expedited business operation by designing a schedule of meetings and appointments for employees
- Compiled data (MS Excel) for relevant business documents to streamline day to day business practices

Piedmont Hospital – Biomedical Engineering Department, Atlanta GA

Aug 2014 – Dec 2014

Student Intern

- Facilitated operation of biomedical equipment and assisted technicians in troubleshooting faulty equipment
- Expedited completion of monthly quota of equipment fixes – i.e. 100 infusion pumps/month
- Provided customer service to visitors, patients, and other medical professionals within the hospital

LEADERSHIP EXPERIENCE

North East Ismaili Center – Council Corner, Duluth GA

Aug 2013 – Aug 2015

Shift Manager

- Hub for all registration and information needs of congregation members of a local religious institution
- Delegated duties to volunteer team and provided customer service to 70+ people in a few hours on a weekly basis
- Operated a database registry system (MS SharePoint 2007) and administered collection of funds for various programs

North East Ismaili Center – Early Childhood Development Center, Duluth GA

Jan 2013 – Aug 2015

Special Projects Coordinator

- Program where children aged 3-6 at local religious institution receive a Montessori-based education
- Organized special events such as Graduation & Field Day by planning events and program schedule
- Oversaw successful execution of events on program days by working with volunteer team of 10-15 people

PROJECTS

Analysis of Aquarium Pump, Transport Processes I

- Designed experiment to measure effects of temperature, split flow, and contraction on total pump head
- Analyzed data to determine the pump curve at room temperature and calculate frictional losses through flow
- Wrote a technical report documenting summary of data and conclusions about pump efficiency

Automotive Catalytic Converter, Numerical Methods

- Modeled Plug Flow Reactor process in ASPEN to optimize output stream quality by accounting for non-idealities

- Optimized rate constant values through iterative calculations in MATLAB using method of Steepest Descent

ACTIVITIES

Georgia Tech Pioneer, Duluth GA

Aug 2017 – Present

Web Designer

- Selected through interview process to work with team to increase visual aesthetic and usability of Pioneer website
- Communicate with BME faculty to understand their goals for the newsletter and work to optimize viewership
- Perform maintenance updates and publish new articles to keep website in-sync with the print-publishing-cycle

Georgia Tech Housing Intramurals (Flag Football)

2015 - Present

American Institute of Chemical Engineers, Member

2015 - Present

Georgia Tech Barbell Club, Member

2016 – 2017

SKILLS/INTERESTS

Chemical: Mass/Energy balances, Phase Diagrams, Separation processes, Heat exchangers, Dimensional Analysis, Momentum/Heat/Mass Transfer, Polymerization Kinetics, Material Properties of Polymers

Laboratory: Thin layer chromatography, Melting point range, Column chromatography, Distillation, Recrystallization, Gas Chromatography, UV/VIS, IR, NMR, Mass Spectroscopy

Software Skills: ASPEN, ChemDraw Linux, Git/GitHub, M.S Office (Excel – Excel Solver, Regression Analysis)

Programming: Java, MATLAB, Python, C, SQL, HTML/CSS, JavaScript – Angular, Node.js (Familiar)

Languages: Spanish (Proficient), Hindi, Urdu (Conversational)

Communication: Technical Report Writing, Customer Service, Mentorship

Interests: Discrete Mathematics, Powerlifting, Music (9 years – Percussion)

AWARDS/HONORS

Zell Miller Scholarship Recipient, Georgia Tech

2015-Present

Dean's List, Georgia Tech

2016-2017

Faculty Honors, Georgia Tech Chemical Engineering Department

2015

Top 10 - Clemson Calculus Challenge

2014

Georgia Governor's Honors Program Alumni, Valdosta GA

2014