

Nimmy Mathew

332594 Georgia Tech Station • Atlanta, GA 30332 • (352) 665-1415 • nmathew27@gmail.com

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY **B.S. in Chemical and Biomolecular Engineering**

Atlanta, GA

August 2009 – August 2013

- Honors

IFS PROGRAM

Gorizia, Italy

Foreign study abroad program that enabled cultural immersion

May 2011–August 2011

- Awarded 1st place for a documentary filmed and edited on site

WORK & RESEARCH

Georgia Institute of Technology

Atlanta, GA

Laboratory Assistant

September 2013–Present

Testing whether bioaerosols present during hurricanes can act as cloud condensation nuclei (CCN), thereby proving the importance of airborne microbial cells in cloud formation and the atmosphere

Universal Avionics

Duluth, GA

Software Certification Test Conductor

May 2012–August 2012

Specialized in complex avionics systems, such as Weather Radar Systems and Flight Control Systems

- Quality Assurance
 - Validated more than 200 scripts with QA software to ensure compliance with requirements
 - Identified over 50 defects in scripts and coordinated with programming team to correct defects accordingly and certify quality
- Teamwork
 - Boosted teamwork and communication skills between the programming department and the certification department by utilizing conflict resolution techniques, such as engaging in collective negotiation

Georgia Institute of Technology

Atlanta, GA

Undergraduate Researcher

January 2011–May 2011

In the Chemical Engineering Department, examined the uptake of various polysaccharide compounds in the absence of glucose by various strains of E. Coli

- Laboratory techniques and equipment
 - Using two control groups and an experimental group, created three medias (glucose, cellobiose, and cello-dextrin) with an autoclave, micropipette, and fume hood
 - Performed an E. Coli inoculation within the three medias using a centrifuge to purify the media, an incubator to allow for cell growth, and a microcentrifuge to collect samples
 - Measured the absorbance of samples using a spectrophotometer and stored supernatant samples in the freezer for future analysis
- Data Analysis
 - Collected the absorbance data with Microsoft Excel to determine the respective cell growth on each media. Discovered that cello-dextrin could be a viable substitute source of energy for E. Coli

Georgia Institute of Technology

Atlanta, GA

Laboratory Experience

August 2011–May 2013

Obtained experience with laboratory settings by completing several laboratory classes as part of the curriculum. Learned to effectively write lab reports and work as a team

- Unit Operations
 - Grasped the engineering/scientific principles and physical models important to the interpretation of chemical engineering processes
 - Served as a team leader for experiments involving fluidized beds, heat exchangers, and isomerization in a packed bed reactor
- Process Control

- Researched the dynamics of interacting systems (tank in series) and multivariate control systems (mixing tanks), as well as the control of highly nonlinear systems (pH) and systems with time delays (heated bar)
- Developed process models and characterized stability and frequency responses for various systems
- Synthesis
 - Discovered methods to synthesize, identify and characterize complex polymers and materials
 - Analyzed experimental data using chromatographs and NMR spectra

LEADERSHIP

Student Alumni Association

Ramblin' On Committee

Atlanta, GA

August 2011 – May 2012

August 2012 – May 2013

In an organization that aims to connect undergraduate students with alumni mentors in the community, hosted a campus-wide event with over 2500 people

- Gathered requirements for project
 - Managed décor and catering budget, coordinated volunteers, organized entertainment, and marketed for the event
 - During weekly meetings, presented updates, delegated tasks, strategized, and made executive decisions
 - Evaluated Lessons Learned documentation from previous years to augment current project
 - Conducted group collaboration meetings to gather data to improve future events via Lessons Learned documentation
- Executed project plan
 - Monitored and tracked activities to completion
 - Applied problem resolution techniques to mitigate risks and issues

Student Alumni Association

Spirit Days Committee

Atlanta, GA

August 2012 – Present

Within a 5-member committee, promoted spirit and traditions on campus by creating events such as Alumni Letter Writing day

- Attended bi-monthly meetings to select events to sponsor and delegate roles for the event
- Vendor negotiation
- Volunteered as a marketing specialist to promote the organization
- Launched events to endorse organization and augment membership

PROFICIENCIES

Languages: English – Read/Write, Spoken; Spanish – Read/Write, Spoken; Malayalam – Spoken

IT/Computer: Microsoft Office, MATLAB, VPython, Aspen Plus, Aspen HYSYS, HTML

Affiliations: Student Alumni Association, Alpha Chi Sigma, AIChE, India Club

Awards: HOPE Scholar Recipient, Dean's list (2009-2013)