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RISHABH DATTA

(678)-469-1864
Atlanta, USA

Education

Georgia Institute of Technology *August 2015 - May 2019* *Atlanta, USA*
Candidate for Bachelors in Mechanical Engineering; Classification: **Senior**
Cumulative GPA: 3.97/4.0

Projects & Experience

Solar Fuels and Technologies Laboratory, Undergraduate Researcher Atlanta, USA
Research Supervisor: Dr Peter Loutzenhiser

Characterization of Doped Perovskites for High-Temperature Solar Thermochemical Processes *August 2018 - Present*
- Synthesize novel doped perovskites for analysis in air separation, water splitting and thermochemical energy storage processes
- Investigate and characterize thermophysical properties of synthesized perovskites using thermogravimetric analysis

Experimentation & Data Analysis of Solar Thermochemical Inclined Flow Reactor *August 2017 - May 2018*
- Investigated granular flow of perovskite oxides down rough inclined surfaces using Particle Image Velocimetry
- Analyzed the reduction of CAM-28 particles in an inclined flow solar reactor for thermochemical energy storage applications

Interface Interaction in Multiphase Fluids *June 2018 - August 2018* Munich, Germnay
Research Supervisor: Dr Stefan Adami

Research Intern, Nanoshock Team, Chair for Aerodynamics and Fluid Mechanics, Technical University Munich
- Developed a method in C++ to solve interface Riemann problems in multiphase flow for computation fluid dynamics applications. Method implemented improved accuracy of results for interface Riemann problems involving large discontinuities in material impedences.
- Designed a method to determine the cell face apertures and volume fractions using Delaunay triangulation

Design of Water Treatment Systems for Tribal Groups in Marsabit, Kenya *August 2018 - Present* Atlanta, USA
Engineering for Social Innovation Center, In partnership with Partners for Care
- Develop an economically feasible process to convert natural water into potable water for use by local populations
- Identify and investigate sediment removal, filtration, disinfection and detoxification techniques for water treatment

Streamlining Waste Disposal Techniques *August 2017 - December 2017* Atlanta, USA
Engineering for Social Innovation Center, In partnership with Waste Ventures, India
- Developed more efficient and cost-effective ways to recycle or repurpose wastes containing metallized films
- Streamlined and boosted efficiency by 80% of compacting plastic bottles into bales for easier transportation and recycling

Tata Motors Limited *May 2016 - June 2016* India
Engineering Intern, Department of Vehicular Frame Manufacturing
- Performed quality control for Long Member and Frame manufacturing of transport and military-grade vehicles
- Analyzed defects and bottlenecks in forming, notching and piercing processes using Six Sigma and lean manufacturings techniques

Leadership & Activities

Georgia Tech Diversity & Inclusion Fellow *December 2017 - December 2019*
- Improved accessibility to events for students with physical, intellectual or financial limitations

Georgia Tech Mental Health Student Coalition *May 2017 - December 2017*
Executive Board, Committee Chair, Reaching the Unreached
- Spearheaded an ambassadors program to tackle mental health challenges in minority student communities

Student Center Programs Council , Georgia Tech *January 2016 - December 2017*
Committee Chair, Wellness, Alumni Relations and Transferable Skills
- Formulated strategies and programs to enhance wellness, inclusivity, professional and technical development of members.
- Organized and executed large-scale events, for more than 4000 students.

Georgia Tech Student Government Association *August 2015 - May 2017*
Communications Board Member & Committee Chair, Graphic Design and Marketing
- Oversaw a Design and Marketing team, and coordinated with Student Government committees for marketing and publicity
- Pioneered the restructuring of branding for the Student Government Association

Selected Awards & Honors

- **President's Undergraduate Research Award** *Fall 2018*
- **Practical Research Experience Program Scholarship** *Summer 2018*
- **Faculty Honors** *Fall 2015 | Spring 2016 | Fall 2016 | Spring 2017 | Fall 2017*

Skills

Software: Engineering Equation Solver**,**Solidworks, CES EduPack - Granta Design, Adobe Creative Design Suite
Programming: MATLAB, C++, Simulink, NI Labview, Java, HTML, CSS, Javascript
Engineering: Thermogravimetric Analysis, Computational Fluid Dynamics, Six Sigma, Lean Manufacturing, Particle Image Velocimetry & Image Processing, Computer Aided Design, Design Thinking
Communication: English, Hindi, German