

SAMUEL JING

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EDUCATION

Georgia Institute of Technology, Atlanta, GA

2020 – 2024

Major: Mechanical Engineering & Physics Minor

Current GPA: 3.98 – Faculty Honors and Dean’s List 2020 – 2022

Relevant Coursework: *Heat Transfer, System Dynamics, Deformable Bodies, Energy Systems Design*

PROJECTS

Texas Projected Wind Farm Feasibility Analysis

Jan 2022 – May 2022

- Created a feasibility projection for a Galveston wind farm using NREL Data and considering local energy needs
- Utilized WT.Perf Software to create the ideal airfoil with 90%+ efficiency given the recorded conditions
- Drafted a cost analysis to showcase the projected cost of energy per kwh produced by this wind farm
- Presented a Final [Report](#) analyzing the feasibility and environmental impact of this project

Competition Robot for Creative Designs and Design Class

Sept 2021 – Nov 2021

- Worked in a team of four to design, model, manufacture and test a robot to complete 3 unique competition tasks
- Tested subsystems with different materials and manufacturing techniques, including 3D printing and laser cutting
- Utilized the Arduino IDE to automate the robot allowing it to complete all assigned tasks within a 40 second limit
- Created a formal presentation, [video](#), [report](#), and other visual media that showcased the design tools and process

WORK EXPERIENCE

Georgia Tech, Nanotech Thermal Radiation Laboratory

Aug 2022 – Present

Undergraduate Research Assistant

- Assisted Graduate Students in measuring spectral radiative properties of ceramic particles using an FTIR spectrometer and monochromator for potential Concentrated Solar Power (CSP) applications
- Measured and analyzed monochromator data to show reflectance ratings of ceramic particles such as Si3N4
- Designated reviewer for NREL Annual Review of Heat Transfer: Thermal Energy Storage (TES) publication
- Managed the group website by updating future conference attendance and recent publications
- Presented a literature study on the current development of Silica Aerogels for CSP receiver applications

McKenney’s Inc, Atlanta, GA

May 2022 – Aug 2022

Project Management Intern

- Streamlined processes for data management in Smartsheet for construction of an \$80+ million data center
- Supported Project Managers with installing ground-breaking mechanical systems within old and new data centers
- Performed material estimates in FastPIPE and aided in project bidding for HVAC system replacement projects
- Used Navisworks, Excel, Bluebeam Revu to coordinate material installment with design team and field workers

Georgia Tech Solar Racing

Aug 2021 – Present

Designer for Suspension Team

- Sketched and modeled a rear-suspension design for a 4-person solar-powered vehicle
- Performed hand-calculations on potential crash deformation of the vehicle frame and the structural safety factor
- Used FEA and aided in analysis of the structural integrity of the carbon fiber composite frame

NASA Aerospace Scholars, Johnson Space Center, Houston, TX

Oct 2018 – July 2019

- Completed 16-week online course researching space design challenges, received grade of 99.1%
- Planned the logistics of a theoretical mission to Mars working with JSC’s specialized employees

LEADERSHIP

Chi Psi Fraternity, Georgia Tech

Jan 2021 – Jan 2022

President

- Organized a fundraiser with the Atlanta Food Bank selling 1000+ pineapples and raising \$900+
- Organized an on-campus outreach event with FurKids Atlanta, raising over \$300 for foster puppies
- Coordinated 30+ brothers to perform renovation tasks and biweekly cleanup for social and recruitment events
- Managed Greek Housing inventory for Chi Psi, facilitated small repairs within the building through contractors

SKILLS AND AWARDS:

Software (technical): MATLAB, Solidworks, Arduino IDE, NX, Navisworks, Bluebeam Revu, FastPIPE, Canva

Management: Excel, Google Sheets, Smartsheet, Dynamics SL, Procore, ClickUp, BIM 360 Glue, Tableau

Fabrication: 3D-printing, Laser Cutter, Product Design (PLM, FMEA, GDT)

Misc/Interests: Fluent in Chinese, Limited Proficiency Spanish, Piano (14 years), Studied Abroad in Metz, France