

# Rafael Maisonnave de Oliveira

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## OBJECTIVE

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STEM student skilled in CAD & CAM systems and computing techniques. Experienced in leadership, prototyping, team projects, manufacturing, research, and process engineering. Passionate about new innovative technologies, and strongly interested in working in a collaborative environment. Looking forward to an internship or a co-op opportunity.

## EDUCATION

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- Georgia Institute of Technology, Atlanta, GA** *January 2024 - December 2024*
- Candidate for MS in Mechanical Engineering — major in Computer Aided Engineering and minor in Manufacturing Engineering
- Georgia Institute of Technology, Atlanta, GA** *December 2023*
- Candidate for BS in Mechanical Engineering, with a concentration in Automotive Engineering — GPA: 3.85/4.00 (Highest Honor)
  - Georgia Institute of Technology Lorraine (Metz, France) - Spring 2021

## PROFESSIONAL EXPERIENCE

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- Advanced Manufacturing Engineering Intern at Lucid Motors, Casa Grande, AZ** *May 2023 - August 2023*
- Used Delmia, 3DX, and Dozuki to restructure the bill of process and the work instructions of 4 main assembly lines and 15 sub-lines
  - Developed and proposed continuous improvement projects to increase the efficiency of the current general assembly process
  - Aided in the beta build and release candidate build of over 10 launch vehicles
- Robotics Project Engineering Intern at Amazon, Boston, MA** *August 2022 - January 2023*
- Aided in the management of the deployment of over 20 Amazon sortation robots in Amazon fulfillment centers
  - Oversaw the site acceptance testing and initial associate training of 9 Amazon sortation robots
  - Managed the development of the technology handoff and hibernation process for 6 technologies
- Manufacturing Engineering Intern at Honda Aircraft Company, Greensboro, NC** *May 2022 - August 2022*
- Designed and developed various manufacturing tools, aiding the efficiency of the wing production process
  - Improved first-pass yield of tool design, by creating guidelines for all processes and meetings
  - Standardized and organized standard tooling operation procedures, improving the efficiency of the tooling development procedure
- Mechanical Engineering Intern at Perto, Gravataí, Brazil** *May 2020 - July 2020*
- Performed market research for Automatic Toll Payment Machines, by researching scholarly articles and collecting data from a toll booth that has over 60,000 customers per day
  - Developed data collection tables in Microsoft Excel, used to collect the amount of each bill used on the analyzed toll booth
  - Reversed engineered and prototyped a receipt printer, with improved receipt cutting technology

## ACADEMIC EXPERIENCE

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- Propulsion Controls and Modeling Member at GaTech EcoCAR, Atlanta, GA** *January 2022 - Present*
- Performed Model-in-Loop tests for the club's modified hybrid Chevrolet Blazer's functions utilizing Simulink
  - Carried out Vehicle-In-Loop tests on the EcoCAR's battery system
- Provisional Prototyping Instructor at the Invention Studio, Atlanta, GA** *August 2021 - August 2022*
- Provide assistance and instruction on the use of the available prototyping/manufacturing tools at the Invention Studio
  - Responsible for ensuring everyone's safety around the studio at all times
- Undergraduate Research Assistant for Metallic Manufacturing Research, Atlanta, GA** *May 2021 - August 2021*
- Utilized CAM (specifically HSMXpress) to machine micro metal graspers using CNC micro machines

## LEADERSHIP

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- Brazilian Student Association (BRASA)** *May 2021 - Present*
- President — Vice President — Director of Student Outreach*
- In charge of communicating and connecting with the Brazilians who currently study and/or previously studied at Georgia Tech
  - Responsible for spreading Brazilian awareness throughout Georgia Tech, and leading meetings in the absence of the President

## SKILLS

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**Concepts:** Finite Element Analysis, Dynamics of Rigid Bodies, Deformable Bodies, System Dynamics, Acoustics & Noise Control

**Communication:** Public speaking, Presentations, Research Papers, Project Management

**Languages:** Portuguese (native), English (fluent), Spanish (intermediate)

**Machining:** CNC, Lathe, Laser Cutter, Band Saw, Belt Sander, Grinders, 3D Printing, Water Jet, Metal Working, Wood Working

**Computing:** DELMIA, CATIA, 3DX, SolidWorks, Siemens NX, Teamcenter, SAP, Java, MATLAB, Python, HSMXpress, Simulink

**Clubs:** EcoCAR (PCM), Brazilian Student Association (BRASA), Invention Studio (ME Maker-Space), GT Motorsports