YASSIN A. REDA

331951 Georgia Tech Station, Atlanta | +1 (949) 402-8487 | yreda3@gatech.edu

EDUCATION

Georgia Institute of Technology | Atlanta, GA *August 2022 - Present*
B.S in Computer Engineering, GPA: 3.20 *Expected Graduation, May 2026*
University of Oxford | Oxford, UK *May - August 2023*
Summer Semester Abroad, GPA: 4.00
Appleby College High School | Toronto, CA *2017-2022*
Honor Student, OSSD Diploma, Appleby College Diploma, Global Leadership Diploma

SKILLS

Software Platforms: Python, Java, C++, HTML, CSS, React, Node.js, Swift UI, MIPS assembly
Design and Simulation: Solidworks, Fusion 360, ROS2, Gazebo, MisaSim
Systems and Tools: Linux, Ubuntu, Arduino, myDAQ, GitHub
Languages: English, French, Arabic

PROFESSIONAL EXPERIENCE

LIDAR Lab | VIP Researcher *August 2023 – Present*

- Conducting research with a team of 4 consisting of a Ph.D. and master's student, with the aim of developing high- resolution camera-based tactile sensors to facilitate multi-finger robotic manipulation and locomotion of objects.
- Applying innovative deep learning techniques and neural network architectures to enhance object state detection, utilizing state-of-the-art GelSight technology to optimize dynamic control systems.
- Gaining expertise in software development on Ubuntu and Linux operating systems, alongside proficiently writing and modifying C source code within ROS 2 to enhance robotic control systems. Additionally, developing familiarity with Gazebo simulator after continuous testing of packages and manipulation procedures.
- Currently working on the B1-Z1 unitree quadruped robot and attempting to implement autonomous capabilities.

ROBONAV Robotics Team | Software and Electrical Sub-Team Member *August 2023 – Present*

- Actively collaborating with a dynamic team to develop autonomous Mars rovers, with the objective of competing in the prestigious International University Rover Challenge.
- Playing a pivotal role in the software sub-team, leveraging ROS 2 software and C programming to meticulously work on sensor integration for autonomous navigation, ensuring seamless communication with receivers and other essential components.
- Thriving in a challenging team environment consisting of approximately 18 students where I rapidly adapted and mastered ROS 2, contributing significantly to the development and operation of the robot's arm, drivetrain signals, and processors.

GT Data Science Club | Team Member *August 2023 – Present*

- Engaging in a collaborative project with a dedicated team of three, aimed at developing a predictive model for Georgia Tech's Men basketball games performances.
- Employing advanced data analytics techniques, utilizing Python and a DataVerse package, to meticulously create a qualitative data visualization win probability model.
- Actively contributing to the club's research findings, demonstrating a strong commitment to the application of data science in sports analytics.

LEADERSHIP EXPERIENCE

Georgia Tech Student Government Association | Elected Representative

Representative for School of Electrical & Computer Engineering *November 2023 – Present*

- Voted in by the SGA executive committee to represent the School of Electrical and Computer engineering. Duties include holding office hours, representing my constituents' voices in the house of representatives and above all liaison between students and the head of the school of ECE.
- Currently sitting on Joint Finance Committee (JFC), which plays a pivotal role in determining funding for on campus organizations and services, ranging from public transportation and healthcare to clubs and sports teams.

Freshman Representative for Class of 2026 *November 2022 – 2023*

- Won a highly competitive election to represent the freshman class of 2026, solidifying my role as a pivotal voice for my peers.
- Demonstrated exemplary leadership skills by orchestrating various social and legislative sessions, fostering a sense of unity and camaraderie among the freshman class.
- Actively engaged with the student body to coordinate events that resonated with the interests and needs of my constituents, enhancing the overall Georgia Tech freshman experience for the class.

PERSONAL PROJECTS

AI Humanoid Robot 2021 – *Present*

- Developed a 3D printed, walking, and talking humanoid robot capable of anticipating human needs. Using all facets of manufacturing and development from, MyRobotLab, Arduino IDE, CAD, 3D printing and electrical and control systems.

NFC Social Card 2023

- Engineered a modern NFC-enabled social card that wirelessly streams music to devices, revitalizing the cassette tape experience. Used CAD, NFC protocols, Java, Android, IOS

Light-Following Robot 2023

- Designed and built a light-following robot that utilizes Python and C++ for sensor integration and programming, incorporating electrical circuits and mechanical design for practical automation applications.