# Juan Antonio Robledo

470-530-6977
jlara36@gatech.edu
juanrobledo12.github.io
Atlanta, GA

## EDUCATION

### Ph.D. Robotics

*Georgia Institute of Technology*
Atlanta, GA
Expected May 2027

### B.S. Mechatronics Engineering

*Tecnologico de Monterrey*
Mexico
*2021*

## LANGUAGES

- Spanish
- English
- Japanese

## SKILLS

### Coding

- Python
- MATLAB
- C

### Prototyping

- FDM, SLA, DLP 3D printing

### Tools

- SolidWorks
- Arduino
- Raspberry Pi
- Linux
- ROS2

## SITES

- https://github.com/JuanRobledo12
- https://www.linkedin.com/in/jarobledo
- https://www.researchgate.net/profile/Juan-Robledo-Lara

## EXPERIENCE

### Teaching Assistant

*Georgia Institute of Technology · Atlanta GA · August 2022 - Present*

- Conducted weekly laboratory sessions for the ECE 3741 Circuit Analysis Lab

### Research Technician

*IPICYT Research Institute · Mexico · August 2021 - July 2022*

- Developed an **air quality monitoring system (AQMS)** that measures carbon dioxide, volatile organic compounds, and particulate matter by integrating low-cost sensors and a Raspberry Pi.
- Calibrated the AQMS sensors using **time series and regression analysis** of a reference instrument data.
- Implemented wireless communication architectures in the AQMS by connecting over 17 devices to a web server using the **MQTT** and **HTTP** protocols.

### Research Trainee

*Harvard Medical School · Boston, MA · June 2019 - January 2020*

- Developed a portable **3D Digital Light Processing printer** that uses commercial resins and a range of hydrogel-based inks to produce small 3D models for tissue engineering applications.
- Developed **low-cost paper-based devices** for in vitro tissue modeling using extrusion-based hydrogel bioprinting.
- Supported the writing and literature review for **original research** and **review articles**.

## SELECTED PUBLICATIONS

- Li, W., Wang, M., Mille, L. S., **Robledo, J. A.**, Huerta, V., Uribe Velázquez, T., Cheng, F., Li, H., Gong, J., Ching, T., Murphy, C. A., Lesha, A., Hassan, S., Woodfield, T. B. F., Lim, K. S., Zhang, Y. S., A Smartphone-Enabled Portable Digital Light Processing 3D Printer. Adv. Mater. 2021, 33, 2102153. https://doi.org/10.1002/adma.202102153
- Li, W., Mille, L. S., **Robledo, J. A.**, Uribe, T., Huerta, V., Zhang, Y. S. Recent Advances in Formulating and Processing Biomaterial Inks for Vat Polymerization-Based 3D Printing. Adv. Healthcare Mater. 2020, 9, 2000156. https://doi.org/10.1002/adhm.202000156

## HONORS AND AWARDS

*Georgia Institute of Technology*

- ECE Fellowship - 2022.

*Tecnologico de Monterrey*

- Honorific Mention (Top 10% best scores of the 2021 Class) - 2021.
- 2021 Mechatronics Class Leader (Voted by the 2021 Class) - 2021.
- Student Development Diploma in Leadership - 2021.
- Academic Excellence Recognition  - 2019, 2020.
- Academic Scholarship - 2016.

## VOLUNTEERING

### Mechatronics Teacher

*Kidbotics · Mexico · March 2022 - June 2022*

- Taught basic automation topics to elementary school children to spark their interest in robotics using sensors, actuators, Arduino, and Scratch.

### Online High School Tutor / Tutor's Coordinator

*PREP@NET· Mexico · August 2017 - November 2018*

- Supervised tutors' performance in terms of the support quality they gave to the online high school students.
- Provided quantitative and qualitative feedback to online students in their Mathematics and English assignments.