

Elizabeth M. Herrejon

Portfolio | github.com/eherrejon3 | [linkedin.com](https://www.linkedin.com/in/elizabeth.m.herrejon) | elizabeth.m.herrejon@gmail.com

EDUCATION

Georgia Institute of Technology, Atlanta, Georgia Honors: Bachelors of Technology in Electrical Engineering and Minor in Robotics	JAN 2020 - JUN 2022 GPA: 3.15/4.0
Georgia State University, Atlanta, Georgia Pursued Bachelors of Science in Mathematics	AUG 2018 - DEC 2019 GPA: 3.66/4.0
Walton High School, Marietta, Georgia High School Diploma of STEM in Engineering	AUG 2014 - MAY 2018 GPA: 3.80/4.0

EXPERIENCE

Georgia Tech Research Institute - SARA Student Researcher, Internship	MAY 2022 - JUL 2022 Atlanta, Georgia
Coding autonomy control software that is resilient to sensor attack. Applying principles from reliability theory and fault-tolerant software design to create controllers for autonomous systems that successfully fail-over into the appropriate "safe" algorithm once a threat has been detected. Two hardware-in-the-loop scenarios to account for: an autonomous car and a swarm of Unmanned Aerial Vehicles (UAVs) in Airsim. Developing new autonomy estimation and localization by blending reliability theory, software engineering, signal processing, and robotic control into a process for Sensor Attack-Resilient Autonomy (SARA).	
Georgia Tech Research Institute - ATAS Electrical Engineering Researcher Assistant, Part-Time	JAN 2020 - FEB 2022 Smyrna, Georgia
Worked with the System Design Division to support various engineers in SSD to troubleshoot circuits, create circuit diagrams, build cable assemblies, and generate technical diagrams. Received Interim Security Clearance and worked on various projects assisting engineers by checking, building, and creating systems to practice and expand on fundamental electrical principles learned in class.	
Georgia Tech Research Institute - Robotic Behavior Development Undergraduate Research Internship Program, Intern	MAY 2021 - JUL 2021 Atlanta, Georgia
Worked with the creation and composition of robotic primitive skills to create flexible behaviors on a 6 degree-of-freedom robotic system in order to create dexterous grasping and manipulation behaviors with a robotic arm with integrated force/torque and vision sensing. Coded in python to develop a deep learning program, Mask RCNN, to catalog and identify different types of electrical connectors using a custom dataset with noise to run training and inference on unmarked images and videos.	
Georgia Tech Research Institute - Support Services Department (SSD) Admin Support Student Assistant, Part-Time	MAY 2019 - DEC 2019 Atlanta, Georgia
Worked under the guidance of an administrative manager to perform different business administrative duties such as creating manuals and spreadsheets, organizing and distributing keys to new employees at 762-B11, create name tags, assign keys in TMA, look over different architectural drawings to assign positions for moving employees, and manage project schedules and office coordination.	
Integral Construction Inc. - Editing Division Student Intern, Intern	MAY 2017 - JUN 2017 Atlanta, Georgia
Reviewed plumbing, electrical, landscape, and mechanical architectural drawings for different engineers while directly editing the files to upload to the company shared drive. Used both AutoCad and Revit to complete the edits. Provided calculations for structural columns of basement project.	

ACHIEVEMENTS

Interim Secret Clearance	Iss. 02 15 2020
OMED Bronze Senior Excellency Award	APR 2022
SHPE Scholarship Recipient	MAY 2020, MAY 2021
HSF Scholar Recipient	DEC-2020
OMED Gold Academic Transfer Award	SEP 2020
GSU Hackathon: Honorary Mention (Cryptography)	OCT 2018, MAR 2019

TECHNICAL SKILLS

Programming languages: C++, C, Python, C#, Java, Kotlin	Web Tech: HTML, CSS, Jupyter Notebooks, JavaScript
ML/AI: Pytorch, Numpy, Pandas, Matplotlib, GDAL	Miscellaneous: Dart, Git, Shell, Latex, Matlab, Linux
Softwares: NI, Photoshop, After Effects, Sony Vegas Pro, Revit, Autocad, Inventor, Arduino, Solidworks, Android Studio	
Microsoft Office: Proficient in Excel, Word, Powerpoint, Visio, Publisher, Visual Studio, AirSim, etc.	

RELEVANT COURSEWORK

Electrical Engineering: Digital System Design, Intro Signal Processing, Circuit Analysis, Microelectronic Circuits, Signals and Systems, Electromagnetics, Energy Systems, Intro to Computer Security, Intro Automation and Robotics, Embedded Systems Design, Control System Design, Senior Design
Computer Science: Intro Artificial Intelligence, Intro to Computer Vision