

CONNOR BOSSARD

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EDUCATION

May 2026

GEORGIA INSTITUTE OF TECHNOLOGY

MS Robotics

Concentration: Artificial Intelligence, Dynamics, Controls

GPA 4.00

Atlanta, GA

May 2024

GEORGIA INSTITUTE OF TECHNOLOGY

BS Mechanical Engineering

Minor: Computer Science – Artificial Intelligence

GPA 3.94

Atlanta, GA

EXPERIENCE

May 2025 - May 2026

SANDIA NATIONAL LABS

Aerial Autonomy Intern

Albuquerque, NM

Aug 2023 – May 2026

DART LAB AT GEORGIA INSTITUTE OF TECHNOLOGY

Research Assistant – Sandia National Labs

- Incorporated information theory principles into multi-agent motion planning algorithms (CLRRT, MPPI, MBD, etc.) for online system identification of an adversarial agent's policy and capabilities
- Leveraged Deep Reinforcement Learning algorithms on 6 Degree of Freedom aerial vehicles to defeat adversarial scenarios in high-fidelity simulations (AFSIM)
- Trained Transformer models to learn generalizable adversarial models for rapid trajectory validation

Atlanta, GA

May 2023 – Aug 2023

SHIELD AI

Mechanical Engineering Intern

- Redesigned subsystem on UAS that significantly increased reliability while decreasing assembly time by over 50%
- Modeled and fabricated multiple prototypes of the subassembly and down selected to a chosen design
- Utilized FEA and safety factors to assist in material selection and ensure strength of subsystem
- Tested response to vibration, salt fog, and cyclical loading to ensure reliability in harsh environments
- Presented redesigned subsystem to management for implementation in further releases of the aircraft
- Developed python interface to automate the visualization of flight controls data, leading to a 75% decrease in time spent visualizing data post flight

Dallas, TX

May 2022 – Aug 2022

PROCTER & GAMBLE

Research and Development Intern

- Utilized PowerBI to visualize data, mockup enhancements and presented solutions for management
- Wrote a python script to automate the unification of data, saving the company 100's of hours annually

Cincinnati, OH

PROJECTS

May 2022 – Aug 2022

BALL BALANCING ROBOT

Modeled and fabricated a robot consisting of 3D printed parts

- Interfaced Arduino with three stepper motors and a resistive touch pad to determine ball's location
- Utilized inverse kinematics to determine how motor movement would impact platform orientation
- Integrated PID controller (C++) to balance a ball, using a resistive touch pad for orientation feedback and the motors for corrective action

Atlanta, GA

Aug 2021-- Dec 2022

EPIC LAB AT GEORGIA INSTITUTE OF TECHNOLOGY

Undergraduate Research Assistant

- Developed enclosure for exoskeleton electronics, accounting for vibrational and environmental stresses
- Contributed to the development of a hip exoskeleton that uses robotic augmentation technology to restore human movement in individuals with mobile disabilities
- Implemented python based micro controller to drive movement of the exoskeleton
- Integrated python GUI, allowing users real-time access to sensor metrics via a wireless socket connection

Atlanta, GA

SKILLS

Certifications: Intro to FEA – Udemy, Linux for Robotics – The Construct, C++ for Robotics – The Construct, Python 3 Programming – University of Michigan

Relevant Coursework: Deep Reinforcement Learning, Machine Learning, Artificial Intelligence, Perception and Robotics, Linear Controls, Non-Linear Controls, Flight Dynamics, Materials and Manufacturing, Heat Transfer, Computer Organization, System Dynamics, Data Structures and Algorithms, Fluid Mechanics

Software: Python, Julia, C++, MATLAB, ROS, SolidWorks, Java, Arduino, Raspberry Pi