

# DIEGO OLIVER

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## General Education

### **Vanderbilt University**

*Current Junior*

August, 2022 - Present

*Nashville, Tennessee*

- Major: Electrical and Computer Engineering
- James E Dillard Jr Scholarship Recipient
- Concentrations: Embedded Computing, Cyber-physical systems, and Microelectronics
- Relevant Coursework: Software Design, Microcontrollers, Electromagnetics, Digital Signal Processing

## Professional Experience

### **WISE Undergraduate Research**

*Summer Intern*

June 4 - August 14, 2024

*Nashville, Tennessee*

- Worked at the Vanderbilt Institute for Surgery and Engineering prototyping stiffness-switching hydraulic grippers
- Designed a temperature-controlled hydraulic system to drive the gripper as well as a GUI for operational control

### **NASA Lunabotics Competition**

*Electrical Team*

May 13 - 20, 2024

*Kennedy Space Center, Florida*

- Created the localization system for our robot's autonomous navigation using time-of-flight estimation of RF signal
- Designed a power supply case for the radio board using Fusion 360 and a simple circuit for the electronics
- Placed top 10 in the national NASA lunabotics competition and number 2 in terms of autonomy

### **VandyHacks X (Official Vanderbilt Hackathon)**

*3rd Place overall*

October 28- 29, 2023

*Vanderbilt's Wondry*

- Developed an app, in 24 hours, called "A.EYES" that takes a picture of the surrounding environment and uses an AI image processing model to create a text-to-audio description for the visually impaired to hear
- Out of 140 registered participants, my partner and I ended 3rd overall

### **The College Institute Robotics Professor**

*Summer Intern*

June 19 - July 14, 2023

*Managua, Nicaragua*

- Taught highschool students the fundamentals of robotics and project design in a month-long summer course
- Covered everything from basic electronics and Arduino prototyping to 3D modeling and wireless communication

## Leadership Experience

### **VU Amateur Radio Club**

*President, Call Sign: KQ4NIL*

May, 2024 - Present

*Nashville, Tennessee*

- Dedicated to deepening our knowledge surrounding RF engineering and wireless networking while at the same time interacting with the rest of the amateur radio community in the Nashville area
- Led events like pico-balloon launches, campus-wide fox hunts, and new member licensing training

### **Medical Translator for Vanderbilt/Belmont Humanitarian Trip**

*Freelance Translator*

July 2023

*Across various locations in Nicaragua*

- Worked for a Vanderbilt-Belmont medical team that came down to work in Nicaragua's most impoverished areas
- Helped with diagnosis, prescriptions, and overall doctor-patient care throughout the two week trip

### **Vanderbilt University Residential Advisor**

*2nd year as RA*

August 2023- Present

*Vanderbilt University*

- Worked for under and upper-classmen residential communities for the past two years with ~700 students
- Trained and enacted crisis management roles regarding mental health, interpersonal, and medical issues

## Skills & Interests

**Software:** Fusion 360, Solidworks, Matlab, OpenCV, Microsoft Office Suite

**Programming:** Processing, Python, C++, Java, AVR Assembly, ROS Foxy

**Languages:** English and Spanish (Fluent), Portuguese (Beginner)