# **Sofiane Lachab**

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# **Education**

#### University of South Carolina - Columbia

Columbia, SC

Bachelor of Science in Computer Engineering

GPA: 4.0

## Awards/Honors/Scholarships

Honors College, SC Palmetto Fellows, National Merit Finalist, Presidential Scholar,

Provost Scholar, Dean's Scholar, Michelin North America Scholarship

#### Coursework

Algorithmic Design I-II, Linux/Unix Fundamentals Calculus I-II and Vector Calculus, Physic I-II

### **Relevant Experience**

#### SC Governor's School for Science and Mathematics

Hartsville, SC

### **Programmer for Autonomous Golf Cart Project**

January 2024 - May 2024

- Programmer on working to progress golf cart project to not need a human driver
- Primarily used C++, Python, and Arduino Nano
- Result: golf cart was functional through Arduino, driven through a gamepad controller

#### SC Governor's School for Science and Mathematics

Hartsville, SC

#### **Head Programmer for FTC Robotics Team 22534**

August 2024 - March 2025

- Head programmer for Team 22534 to ensure the robot was programmed to complete tasks
- Programmed in Java utilizing Android Studio and the FTC library
- Included autonomous trajectories, object detection through camera utilizing a TensorFlow model, and motor/servo control through gamepad controllers

### **University of South Carolina – Columbia (Dr. Ming Hu)**

Columbia, SC

# Research Internship Studying Material Science Using AI Models

June 2023 – July 2023

- Studied crystal structures properties that would allow for optimal energy handling in search of potential superconductors
- Utilized VASP calculations as well as the DeePMD machine learning model for analyses
- Found optimal lithium concentration for energy in a sodium lithium oxide compound

## Skills

Programming: Java, Python, Linux, HTML/CSS, C++ (novice), Arduino (novice)

Basic Hardware and Circuitry Background

Strong Math and Physics Background