

Andre Boufama

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Education

- Cornell University, B.S. Mechanical Engineering (Minor: Aerospace Engineering) *Expected May 2027*
Cumulative GPA: 3.91

Skills

- Programming: Python, C#, C/C++, HTML/CSS for website design
- CAD 3D design: Proficiency in Autodesk Fusion 360 and Blender
- Aerospace VTOL UAV and Quadcopter build experience - Using ROS2 on Raspberry Pi
- Data Engineering: Azure SQL, Jupyter Notebook, Pandas + Data Analysis and Inferential Procedures

Work Experience

- Robotics Swarm Control Research Intern, University of New Hampshire *June 2022 - August 2023*
 - Designed and implemented a LoRA based swarm communication prototype for drones and ground robots; presented poster at New Hampshire EPSCoR Summer STEM Symposium
- Data Engineer Intern at Taylor Fresh Foods *July 2024 - May 2025*
 - Used Microsoft Powerapps functions through Databricks to optimize energy efficiency and collect environmental data for more efficient warehouse energy partitioning
 - Applied knowledge of Microsoft PowerApps on intercompany order routing system in collaboration with Walmart to automatically parse and log order PDFs
 - Using JavaScript in React Native to build a multiplatform GenAI RAG for internal indexing, built and trained with the Databricks data lakehouse and deployed company wide for internal testing
- Summer Camp Counselor, EPIC robotic programming camp *July 2021 - August 2024*
 - Designed coding and AI focused curriculum and robotics activities for middle schoolers; led classroom instruction and supervised five camp volunteers and 30 campers
- Customer service, McDonald's *May 2023 - July 2024*

Personal Projects and Clubs

- Modular Hydroponics System, won First Prize Award in Instructable's "Green Future Student Design Challenge" <https://www.instructables.com/Modular-Hydroponics-System-1/>, Top 50 Instructables of 2023
- Overpass Oasis, won First Prize Award, Instructables "Make it Bridge" Student Design Challenge <https://www.instructables.com/Cable-Stayed-Pedestrian-Bridge-Concept-unfinished/>
- Built, donated, and programmed in Python a custom-designed large-scale CoreXY FDM 3D printer to Berwick Academy's makerspace.
- Founding member and lead engineer at the Cornell Laparoscopic Surgery club designing training tools for non invasive surgery techniques pioneered by organization founder Dr. James Rosser