Filippo Latte
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EDUCATION

Florida International University **May 2025**
Bachelor of Science in Mechanical Engineering **GPA 3.5**

TECHNICAL EXPERIENCE

NASA High Volume at FIU, Lab Technician **October 2023 - Current**

- Synthesized specialized conductive silver nanoparticles inks tailored for electronic circuit printing, optimizing electric resistance while obtaining a viscosity below 5 centipoises required for circuit fabrication using a standard inkjet printer.
- Devised a systematic methodology to evaluate the efficacy of 3D printed antennas, comparing their performance against commercial counterparts
- Executed comprehensive compression and tensile tests on 3D printed prototypes, varying printing temperatures and infill compositions.

Pennsylvania State University, Research Experience for Undergraduate Students **Summer 2024**

- Performed characterization techniques such as Atomic Force Microscopy and Raman Spectroscopy on the samples grown
- Analyzed and processed data collected from different characterization methods using MATLAB
- Summarized and presented my research at the 2024 Penn State Undergraduate Research Symposium as well as weekly progress reports to mentors and faculty

Miami Dade College, Research Assistant **Summer 2021**

- Created a 3D model using SolidWorks and rendered with Blender 3D, to present the use of hydrogen fuel cells as power source for an electric engine. The design showed the five main components of the system, and the connections needed
- Designed experiments to compare different sources of renewable energies considering emissions, efficiency, and power outage. The conclusion showed hydrogen fuel cells as approximately 23% more efficient than diesel generators
- Published and presented the results of the research in the "School of Science 10th annual research symposium"

TOOLS

- SolidWorks, Siemens NX, Ansys Workbench, Blender 3D, Adobe Lightroom, Microsoft Office, Adobe Photoshop

PROJECTS

First Person View Analog Drone

- Soldered motors, video transmitter, camera, and controller receiver to the electronic speed controller and the flight controller on the drone
- Programmed the video transmitter frequencies and power level. Considering interference from other drones or devices
- Linked receiver and controller using a specific ELRS (Express Long Rage System) signal to avoid interferecance
- with other devices

Autonomous Seagrass Robot

- Designed power system for the robot taking into consideration exposure to salt water, heat dissipation and power output
- Presented weekly on project progress to professor and students as well as created engineering reports on the project developments
- Collaborated with stakeholders to define project metrics, establish clear objectives, and align outcomes with organizational goals

LEADERSHIP EXPERIENCE

Florida International University, Student Technician **May 2023 – October 2023**

- Provided technical support to researchers, staff, and students in the College of Engineering and Computing
- Managed an array of Windows, and LINUX network servers. These servers provide workstations with application services, data storage facilities, and network information services
- Maintained engineering software such as Ansys, AutoCAD, and SolidWorks

Geek Squad, Consultation Agent **September 2021- June 2022**

- Trained new hires on different standard operating procedures and company practices
- Implemented de-escalation and conflict resolution to achieve positive outcomes for clients and the company
- Diagnosed and found solutions to client’s issue thru the company’s standard operating procedure