# Madeleine (Maddie) Wisinski

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#### **EDUCATION**

#### Tulane University, New Orleans, Louisiana - GPA: 3.689

**Spring 2024** 

- Majors: Engineering Physics (ABET) and Computer Science with a certificate in Computational Engineering
- Extracurricular: Scribe of Tulane Theta Tau Engineering Fraternity and Networking Chair for Tulane SWE

#### **PROIECTS**

#### **Mesh Network Measurement Nodes**

August 2023 - Present

Team Leader

- Awarded a \$3,000 grant for a team of 6 to create 100 sensor nodes for FCAT, an Ecuadorian NGO
- Design a power-efficient, embedded C++ program that measures data and communicates over radio
- Construct the mesh network that relays to a custom full stack React & Node web application to analyze data
- Finalize decisions on how to use our budget efficiently and effectively for our final product and FCAT
- Analyze the timeline weekly and delegate tasks to team members to ensure that the team stays on track

#### **Tulane Makerspace Machine Control Redesign**

**May 2022 - February 2023** 

- Implemented an open source, fullstack, NodeJS and ReactJS website from scratch for authenticating users on makerspace machinery
- Designed custom components for intuitive use and cohesive appearance

#### **Current Water Sensors**

September 2021 - January 2022

- Created a mesh network of water sensors to detect flooding on campus for an engineering design group project
- Prototyped and iterated on custom housings and components for sustainability and sensitivity
- Designed ReactJS frontend with interactive map to report GIS data

#### WORK EXPERIENCE

Tulane MakerSpace June 2022 - Present

Fabrication Technician

- Solve problems with users and other fabrication technicians on various engineering projects and challenges
- Repair and maintain machines, such as the Bambu/Creality 3D printers and Epilog Laser Engravers
- Train and guide users on correct and safe use of machines

Northwestern Mutual June 2023 - August 2023

Software Engineer Intern

- Increased testing coverage through unit, functional, and regression tests
- Analyzed issues with teammates while learning new concepts and methods
- Coordinated with teammates in an Agile environment on a large-scale frontend ReactJS application
- Utilized Git Version Control effectively in a complex code environment

Tulane University January 2023 - May 2023

Computing Concepts (MATLAB) Teaching Assistant

- Supported students through one-on-one learning for the basics of programming logic
- Assisted the professor by managing assignment grades and proctoring exams
- Led lab sessions allowing for students to work on homework and ask questions

## Dickie Brennan's Palace Cafe

**June 2022 - August 2022** 

Line Cook

- Prepared ingredients for use during service as well as maintained a station independently
- Followed all safety and health standards according to restaurant policy and procedures
- Trained coworkers on multiple stations and dishes

#### **SKILLS**

**Programming:** Java (5 years), Python, C, C++, Arduino, C#, JavaScript, NodeJS, ReactJS, CSS, HTML, MATLAB, Simulink Controls Systems, Git Version Control, Azure Web Apps, and OpenGL in C++

Machinery: 3D Printers, Epilog CO2 Laser Engraver, CNC Mill & Lathe, Waterjet, and Woodshop & Metalshop Tools

**Programs:** Autodesk Fusion 360 (4 years), Adobe Illustrator, and Microsoft Suite

### **ADDITIONAL INFO**

**Hobbies:** Music, Guitar, Coding Personal Projects, Biking, Cooking, Baking, and Bread-making