# Melanie Ehrlich

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## Education

#### University of Central Florida

Bachelor of Science in Computer Science

Aug. 2020 – May 2024

Orlando, Florida

#### Relevant Coursework

• Algorithms Analysis

- Data Structures
- Intro to C Programming
- Calculus I-III
- Object Oriented Program
- Computer Logic
- Discrete Structures
- Systems Software

# Experience

# General Dynamics Mission Systems

Software Engineer Intern

Feb. 2022 – Present Orlando, Florida

- Utilize C++, Linux bash scripting, and virtual machines to assist with development on laser detection software.
- Participate in code reviews, sprints, and scrum meetings in an Agile work environment using Jira and Confluence.
- Perform tests on new software features using Jenkins and work on Java application development in Android Studio.

#### Socio-Technical Interaction Research Lab

May 2021 - Feb. 2022

Undergraduate Research Assistant

Orlando, Florida

- Used MySQL and AWS to troubleshoot participant issues with uploading data for a Instagram Data Donation project.
- Completed risk annotations on participant Instagram conversations, to be used in a machine learning model.
- Increased participation in the study by contacting external organizations, following up with participants by email, and updating the study's website.

## Projects

#### Knight Hacks Website | Golang, GraphQL

May 2022 - Present

- Develop the backend for the website of UCF's hackathon, Knight Hacks, as part of a team using Notion for project management and GitHub for version control.
- Write schemas in GraphQL that would allow the frontend to easily display information on the website, such as for new hackers and sponsors for the hackathon.
- Program functions in Golang to work with backend data, including updating event information to be displayed on the hackathon website.

#### My Tech News | HTML, CSS, Figma

September 2021

- Created a web application for the ShellHacks hackathon that gives users a curated IT-related news experience.
- Worked with Trello and GitHub to manage project tasks for a team of four.
- Designed a UI for the app using Figma and implemented the front end using HTML, CSS, and Bootstrap.

#### Skippy Discord Bot | Python

July 2021

- Developed a multipurpose Discord bot using Python and the Discord.py library.
- Utilized the Tenor API to allow users to search for GIFs by giving the bot a search term.
- Added various bot commands, including a quote command using the Quotable API that returns an inspirational quote.

#### Technical Skills

Languages: C, C++, Python, Java, HTML, CSS, JavaScript, Golang

Developer Tools: VS Code, IntelliJ, CLion, Android Studio

Technologies/Frameworks: GraphQL, MySQL, AWS, Linux, GitHub

#### Leadership / Extracurricular

#### Association for Computing Machinery

May 2021 - Present

Marketing Director

University of Central Florida

- Responsible for managing ACM-W social media profiles and leading the Marketing Committee.
- Create flyers for events using Canva to increase turnout and promote diversity and inclusion of women in tech.
- Collaborate with other club officers to organize new events and grow the organization.

# Knight Hacks

Nov 2020 - Feb. 2022

Communications Director

University of Central Florida

- Lead a team of students to market Knight Hacks, UCF's annual hackathon, to thousands across from the US.
- Managed Knight Hacks social media profiles and divides tasks among communications team members.
- Increased hackathon turnout with a marketing plan which in turn allows more students to gain experience in building software projects.