



MELANIE EHRLICH

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Education

University of Central Florida

Aug 2020 – May 2024

Bachelor of Science in Computer Science, 3.62 GPA

Orlando, Florida

Experience

General Dynamics Mission Systems

Feb 2022 – Present

Software Engineer Intern

Orlando, Florida

- Develop laser detection software written in C# and C++ according to customer requirements, including implementing a new protocol for international messages to be read by the 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

Budgie | *Firebase, Node.js, Express, React, Git, Jest*

Oct 2022 - Nov 2022

- Created a website and mobile application that allows users to manage their expenses and compare the total amount spent for a month to their target amount, including a calendar view of when bills are due.
- Utilized Firebase to host the database and wrote API functions using Express to send information from the database to the frontend, such as the bills and budgets that a specific user created.
- Collaborated in a team of eight members and used ClickUp for project management and task distribution.

Knight Hacks Website | *Golang, GraphQL*

May 2022 - Sep 2022

- Developed 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.
- Wrote 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.
- Programmed functions in Golang to work with backend data, including updating event information to be displayed.

My Tech News | *HTML, CSS, Figma*

Sep 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.

Technical Skills

Languages: C, C++, C#, Python, Java, HTML, CSS, JavaScript, TypeScript, Swift

Developer Tools: VS Code, Visual Studio, IntelliJ, CLion, Android Studio, Xcode, Google Cloud Platform

Technologies/Frameworks: Express, Node.js, React, Firebase, MySQL, AWS, Linux, Git

Leadership / Extracurricular

Association for Computing Machinery

May 2021 – Sep 2022

Marketing Director

University of Central Florida

- Previously responsible for managing ACM-W social media profiles and leading the Marketing Committee.
- Created flyers for events using Canva to increase turnout and promote diversity and inclusion of women in tech.
- Collaborated 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.