Alice **Hartley**

Computer Engineer

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Education

University of Florida *Gainesville, Florida*

B.S. in Computer Engineering. *Apr. 2021*

- GPA: 3.60
- Relevant Education:
  - Digital Logic and Computer Systems. Computational Linear Algebra. Software Engineering. Statistics for ECE.
  - Computer Organization. Data Structures and Algorithms. Microprocessor Applications 1 and 2.

Experience

Visa - Intern *Visa Global HQ, Foster City, CA*

SWE Intern *May. 2019 - Aug. 2019*

- Developed a management console for task processors using **Golang**.
- Developed a remote debugging tool using a **Golang** interpreter and a **GRPC** interface.
- Interfaced with project leads to accurately plan and map out project spec and scope.

Polysubstance Abuse Survey *University of Florida*

Freelance Desktop Application *Jan. 2019 - June. 2019*

- Managed project using the **Agile** design process in order to provide our client with as much flexibility as possible.
- Maintained constant contact with the client to update the requirements throughout the project time-line.
- Utilized **Electron**, **React**, and **Material-UI** to create a fluid, simple to use interface.
- Designed extensive algorithms to shape the output data into the client's end-user specifications.

Madd Engine - Lead Developer *University of Florida*

3D OpenGL Game Engine *Jan. 2018 - Present*

- Implemented scalable object-oriented structure in **C++** with a Core Game Context and additional on-demand submodules.
- Lead our dev team in designing important modules, and identifying needed features for later versions of Madd.
- Utilized **GLFW** and **OpenGL**, **ASSIMP**, and **BULLET** for Graphics, Asset Management, and collisions.
- Goal was to create a stable game design framework that is easily understood by beginning game and engine devs.

RTOS Pictochat Lite *University of Florida*

Microprocessors 2 *Apr. 2019*

- Designed a Real-Time Operating System with Wifi and Graphics drivers.
- Created a drawing application using **TI MSP432** and **RTOS** system.
- Features include: variable size brushes, undo button and receiving another user's drawings
- Optimized algorithm to balance performance and accuracy when undoing brush strokes.

Involvement

Association of Computer Engineers *University of Florida*

Project Manager *Dec. 2018 - Dec. 2019*

- Planned tech talks with workshop chair to introduce new topics and concepts to members.
- Developed project ideas and plan of action with project chair to provide members with many opportunities to build on projects.

Association of Computer Engineers *University of Florida*

Project Chair *Jul. 2017 - Dec. 2018*

- Led a team of ACE members to develop fully featured software and hardware projects.
- Worked with executive board and other chair members to manage the project.
- Participated in a workshop committee to help design and put on workshops for the UF community.
- Volunteered at community outreach programs to teach children about robotics and programming.

Skills

Languages/Tools Python, C, C++, OCaml, Antlr4, Prolog, Node.JS, Julia, OCamllex, Menhir, LLVM, Git, VHDL, ARM, GO, UNIX