# Carlos de Guzman

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## **EDUCATION**

## **Bachelor of Science in Computer Engineering**

May 2023

University of Florida, Gainesville, FL

GPA: 4.00/4.00

National Merit Scholar

**Relevant Coursework:** Data Structures and Algorithms, Comp. Org, Digital Logic, Software Engineering, Data Science, Microprocessor Applications

Fall 2021: Operating Systems, Signals and Systems, Digital Design

## **PROJECT EXPERIENCE**

## SASE Website Admin Dashboard, Project Manager | React, Firebase, Node, Bootstrap

January 2021 - May 2021

- Organized team to deliver the product using Agile software development methodology
- Communicated with the client, representing their needs during scrum meetings
- Setting up admin authentication with tools including creating/modifying posts and user management

## "UF Grand Exchange" Web Application, SwampHacks 2021 | React, Material-UI

January 2021

- Designed and developed a MERN Stack Application that allowed users to create posts for their desired classes
- Responsible for linking the posts form to make requests to the backend

## "//weather" Web Application | JavaScript, HTML, CSS, Jest, Git

November 2020

- Designed and developed a Web App using OpenWeather API that sorts and displays cities by longitude, latitude, and distance from a specified city, comparing using heap and quick sort
- Responsible for implementing sorting algorithms and creating unit tests with Jest

## **Digital Logic CPU Design** | VHDL, Quartus

July 2020

- Utilized Quartus and VHDL to create functional block diagram schematics
- Created an instruction register and ASM controller to implement instructions on an Arithmetic Logic Unit
- Compiled design to PLD board and verified functionality using simulated ROM for program inputs and 7-segment displays for register outputs

## **WORK EXPERIENCE**

#### University of Florida Computer Information Science and Engineering

Computer Organization Teaching Assistant

January 2021 - May 2021

- Created course content and leading a 30-student discussion section
- Updating knowledge of computer organization conventions for RISC-V ISA

## Programming Fundamentals I Teaching Assistant

July 2020 - December 2020

- Prepared course content and code demonstrations for the weekly 23-student discussion section
- Maintained and further developed experience with Java and programming fundamentals

#### **UF Successful Transition and Retention Office,** *Mentor*

April 2020 – May 2021

- Developing virtual academic and personal development events to engage 53 STEPUP mentees
- Collaborated with peer mentor team to determine grading and office hours for the Calculus, Intro to Research, and Computer Simulation workshops during Summer B semester

## INVOLVEMENT / LEADERSHIP

## **UF Society of Asian Scientists and Engineers (SASE)**

Member Outreach Chair

June 2020 - May 2021

- Recruiting members and developing responsibilities for SASE internships/ENG committee
- Responsible for planning events for new member attraction and active member retention

## SRC Logistics Committee Member

October 2020 - March 2021

- Responsible for researching, proposing, and onboarding the online platform for 200 attendees during South Regional Conference
- Administrating and building the conference workshop and career fair platforms on Brazen

## Citi EID Mentorship Program

February 2021 - March 2021

- Received mentorship regarding leadership and software development in industry
- Learned about innovative technologies like Cloud computing, Big Data, and AI through various technical workshops

## **SKILLS**

Languages: Java, C++, C, Python, JavaScript, VHDL, MATLAB Assembly: ARMv8, RISC-V, AVR

Libraries, Frameworks, Tools: Git, MS Excel, HTML, CSS, Pandas, SciPy, Matplotlib, Quartus Basic: React, Firebase, Node