

# Jacob Sage

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## Education

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### University of Central Florida

Expected Graduation: May 2022

B.S. Computer Science w/ Minor in Mathematics

GPA: 3.56

Enrolled in the Accelerated Computer Science M.S. program

Leadership: Club Officer for the University's Artificial Intelligence club (AI@UCF) w/ **over 850 members**

## Skills

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**Languages:** Python, C, Java, C#, C++, JavaScript, HTML, CSS

**Frameworks:** NumPy, pandas, PyTorch, Unity, PyGame, React.js

## Experience

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### Fitak Integrative Genomics Laboratory, UCF

September 2020 – Present

*Undergraduate Researcher*

Orlando, FL

- Will perform computational analysis and implement Machine Learning models to detect patterns in billions of samples of bird DNA

### EC-Council

June 2020 – August 2020

*Machine Learning Engineering Intern*

Remote

- Created software that, based on user activities within a competition, can predict the time required for future users to complete competition challenges

### Esaote North America

October 2019 – November 2019

*Freelance Software Engineer*

Tampa, FL

- Created software in Python that reformats patients' files in mass quantity to aid the company's transition into newer equipment

## Notable Projects

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### Super Smash Bros. RL Python

- Leading a five-person team to make a reinforcement learning agent for Super Smash Bros. Melee
- Accessed the emulator's program memory to obtain relevant information on the game state

### Maze Solver Python, PyGame

- Built a program that allows the user to draw a maze out of a grid and uses a search algorithm to direct Toby (the in-game character) through the maze

### Visa Job Finder React.js, JavaScript, JSX, Node.js, HTML, CSS

- Handled the front-end development of a website used to help immigrants find work based off of their visa
- Created for a group project at SwampHacks (University of Florida hackathon)

### Compiler C

- Created a recursive descent parser that converts input from a pseudocode-like language, SimpleC, into LLVM IR machine code
- Able to parse functions, if-statements, variable assignment/declaration, and regular expressions

## Relevant Academics and Coursework

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Algorithms and Data Structures I/II, OOP, Discrete Mathematics, Statistics, Calculus I/II, Physics I/II