

JOSUE ARREAGA

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EDUCATION

Bachelors in Computer Science

May 2025

Florida International University; Miami, Florida

- Current GPA: 3.9

Associate of Arts in Mathematics

Jun 2020

Miami Dade College; Miami, Florida

- Graduated with Highest Honors

EXPERIENCE

Software Engineering Intern

May 2023 – Current

Omics Informatics; Honolulu, Hawaii

- Created one interface to facilitate the users sorting and exporting of desired data saving 5 Gigabytes of space
- Connected one API to a pipeline to remove third-party applications, simplifying the user interfaces by 33%

Mathematics Tutor

Mar 2019 – Apr 2023

Miami Dade College Ernesto Padron Campus, Educational Services of Miami; Miami, Florida

- Facilitated the learning of students on Calculus 1-3, Differential Equations, Discrete Mathematics, Linear Algebra, Precalculus, and Trigonometry
- Guided groups of up to ten students, and held on one-on-one tutoring sessions to assist in Mathematics

Teacher Assistant

Mar 2019 - May 2020

Miami Dade College Ernesto Padron Campus; Miami, Florida

- Led in-class learning for Calculus 1 - 2, Precalculus, and Trigonometry at Miami Dade College
- Hosted Peer-Led Team Learning (PLTL) for Trigonometry, Pre-calculus, and Calculus three times a week alongside fellow tutors to teach groups of ten students mathematical subjects and answer any doubts

PROJECTS

Blockudoku Engine (Java Development)

May 2023

- Developed one engine strong enough to outplay humans in Blockudoku consistently with a 1,000 game analysis
- Tested over 10,000 runs to optimize engine parameters and determine the strength, mean score, standard deviation, and margin of error

Personal Website (Web Development)

Feb 2023

- Developed with 74 % HTML, 24% CSS, and Bootstrap to run as a static website hosted through GitHub
- Notable features included are: a navigation bar, a carousel, and a contact form. This website is 100% responsive and works perfectly on Tablets, Laptops, and Desktops

Scrollable Apps (Mobile Development)

Aug 2022

- Created through Android Studio with Kotlin to implement view-binding features for scrolling like in Instagram
- Implemented one on-click listeners and two different class activities to travel from page to page

Classic Mario (Game Development)

Jun 2022

- Programmed through Unity using the asset store, state animations, and vector logic for character movements
- Incorporated abstract classes to create a shop system, static variables to keep track of currency, and singleton patterns for data persistence and triggers. One hundredth percent Mobile-Friendly

RELEVANT TECHNICAL COURSEWORK

- Data Structures, Systems Programming, Principles Of Programming Languages, Principles Of Software Engineer, Fundamentals Of Software Testing, Computer Architecture, Statistics for Computer Science, Theory Of Algorithms, Graph Theory, Discrete Mathematics, Calculus One - Three, Differential Equations, Linear Algebra, Java, C#, C++, C, CSS, HTML, Python, Kotlin, Lisp, Scheme.

LEADERSHIP

- Founder of the Math Honor Society at Miami Dade and speaker at Indianapolis PLTL National Summit 2019