

# Johnny Ngo

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## EDUCATION

### Bachelor of Science in Computer Science

December 2022

University of Central Florida, Orlando, FL

GPA: 3.7/4.0

- Relevant Coursework: Operating Systems, Process Object-Oriented Software, Secure Software Development Assurance, Concepts of Parallel and Distributed Processing, Database Systems (SQL)

## SKILLS

Languages: C, Java, JavaScript, HTML/CSS, SQL

Frameworks and Libraries: React.js, Express.js, Node.js, D3.js, Jest.js

Tools: Git, Jira, Expo, Figma, MongoDB

## TECHNICAL PROJECTS

### Algorithm Viewer

<https://algorithmviewer.com/>

- Utilized **D3.js** and **React.js** to develop interactive, step-by-step visualizations of data structures and algorithms, enhancing data visualization for computer science students and improving their understanding and retention of important concepts.
- Optimized the algorithm visualizer's usability by implementing interactive functionalities.
- Migrated legacy code base from Unity to D3.js, leading to a 50% reduction in runtime for the visual loading pages.
- Deployed unit tests utilizing **Jest.js** to insure the stability of the code.

### Sun Bay Hospitality Platform

<https://github.com/jxngo/Sunbay-Hospitality-Platform.git>

- Developed a hospitality web and mobile application using **MERN** stack.
- Created an Android mobile user interface for guest ordering utilizing **React.js** and **Expo**.
- Implemented CRUD with RESTful API endpoints, utilizing **Node.js**, **Express.js**, and **SQL** for seamless data retrieval and manipulating.
- Devised the database with **MongoDB**.

### Concurrent and Sequential Logarithmic Algorithm Research

- Led a designated research team consisting of 5 undergraduates to conduct research on concurrent development.
- Utilized **Java** Multithreaded framework Fork/Join (JUC) and its subclass Recursive Action, to conduct performance tests between sequential and multi-threaded logarithmic sorting algorithms.
- Coordinated the project by delegating tasks, conducting regular standups, scheduling sprints, and estimating task durations.

## WORK EXPERIENCE

### Instructional Tutor

March 2022 – Present

Orange County Public School, Orlando, FL

- Facilitate the development of students' fundamental understanding of core mathematical concepts.
- Create proficiency evaluations to gauge students' mastery utilizing mathematical tools with the aim of augmenting their mathematical expertise.
- Improved the school's algebra test scores, resulting in the school being ranked number one in Orange County.

## AWARDS

### First Prize, Senior Design Showcase

December 2022

University of Central Florida, Orlando, FL

- Awarded 1<sup>st</sup> in a showcase competition among UCF Fall 2022 Senior Design computer science projects.
- Presented Algorithm Viewer at Senior Design Semi-Finalist Showcase to industry judges.