

Oscar Silva-Santiago

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EDUCATION

Appalachian State University, Boone, NC

Bachelor of Science in Computer Science

Minor: Mathematics

Anticipated Graduation Dec 2025

GPA: 3.8

PROFESSIONAL EXPERIENCE

Appalachian State University | Boone, NC

Jan 2023-Present

Computer Science Tutor

- Guide students through programming assignments and debugging processes, enhancing their understanding of computational logic and coding best practices.
- Promote ethical learning, assist in the development of learning skills, and document student visit progress.
- Supporting coursework in Computer Science I & II, Data Structures & Algorithms, Systems Programming, and Programming Languages, among others.

Appalachian State University | Boone, NC

Oct 2022-Present

Math Tutor

- Provide one on one and group tutoring to reinforce core mathematical concepts, helping students improve problem solving skills and exam performance.
- Foster self-advocacy, cultivate academic independence, and facilitate student connections to resources.
- Qualified to tutor mathematics courses including Pre-Calculus, Calculus I & II, College Algebra, and Linear Algebra.

PROJECTS

Media Logger

In Development — Next.js, React, Tailwind, NextAuth, MongoDB

- Developed a media-tracking application for logging game shows and games watched or played.
- Built with Next.js and React to deliver a modern, responsive, and performant user experience.
- Implemented user authentication with NextAuth and integrated MongoDB for secure, persistent data storage.

Quintus

Java, Maven, JavaFX, Selenium, and Git

- Developed Quintus, an application that collects flight data through web scraping with Selenium.
- Gained hands-on experience in package management, documentation analysis, and UX/UI design.
- Strengthened teamwork, problem-solving, and critical thinking skills through collaborative development.

Sudoku Solver - <https://webprojects.orss.dev/sudokuSolver/>

HTML, CSS, JS, and Git

- Constructed a web application that allows users to input a Sudoku puzzle and receive a solved version.
- Implemented a constraint satisfaction algorithm with recursive logic to efficiently generate solutions.

Not-Great-Not-Drawful - <https://github.com/orssdev/Not-Great-Not-Drawful>

HTML, CSS, JavaScript/Node

- Built a real-time multiplayer drawing game in a 24-hour hackathon, inspired by *Jackbox's Drawful*.
- Developed the backend using Node.js and Express.js, leveraging WebSockets for real-time communication.
- Designed a responsive interface compatible with both mobile and desktop devices.

Handwritten-Digit-Classifier - <https://github.com/orssdev/Handwritten-Digit-Classifier>

Python, JS

- Trained a Convolutional Neural Network (CNN) to recognize handwritten digits using the MNIST dataset.
- Engineered and trained the model with Python and TensorFlow/Keras.
- Gained practical understanding of convolutional layers, pooling, activation functions, and model evaluation.

SKILLS

Technical: Python, Java, JavaScript, HTML, CSS, Linux, C++, C, JS/Node Js, MySQL, GIT, Networking, Artificial Intelligence, NoSQL, Reactjs, Nextjs, Tailwind, MongoDB

Languages: English and Spanish