

# WYATT AVILLA

[github.com/wyatt-avilla](https://github.com/wyatt-avilla) 

(408)506-2189

[wyattmurphy1@gmail.com](mailto:wyattmurphy1@gmail.com)

## EDUCATION

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**University of California, Santa Cruz**

*Sept 2021 - Present*

*Major:* B.S. Cognitive Science, specializing in AI & HCI

**CGPA: 3.9**

*Minor:* Computer Science

**Relevant Courses**

Data Structures & Algorithms, Object Oriented Programming,  
Parallel Programming, Computer System Design, Artificial Intelligence

## TECHNICAL STRENGTHS

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**Programming Languages**

C/C++, Python (Pandas, NumPy), Rust, Bash, Lua

**Software & Tools**

Git, Linux, GitHub Actions, CI/CD, WebAssembly, Docker, AWS

## WORK EXPERIENCE

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**Python Developer Intern**

Sept 2024 - Dec 2024

*Lillup*

- Developed a custom parser for an internal markup language, emphasizing type safety and maintainability through static typing with Mypy
- Architected and implemented a fully typed API using the LangChain framework, incorporating comprehensive testing and CI/CD pipelines through GitHub Actions
- Demonstrated project leadership through GitHub ecosystem utilization (Issues, Wiki, Actions), coordinating technical initiatives and maintaining high code quality standards

**Data Structures & Algorithms Tutor**

July 2024 - Sept 2024, Jan 2025 - March 2025

*University of California, Santa Cruz*

- Led group sessions and provided one-on-one assistance to students in data structures and algorithms concepts
- Developed and curated supplemental learning materials, including exam preparation resources and practice problems

## PROJECTS

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**PowerPC Assembly Reverse Engineering** 

March 2024

Contributed to an open-source project to reverse-engineer *Super Smash Bros. Melee*, working to translate PowerPC assembly into C. Collaborated with a team of developers to improve the codebase's accuracy, functionality, and documentation.

**Neural Network Decompiler Pipeline** 

Sept 2024

Developed a pipeline to train neural networks for assembly decompilation by processing C code through multiple compilers and optimization levels. Utilized PyTorch for model training and Tree-sitter for efficient tokenization and vectorization.

**Rust-Based Website** 

June 2024

Built a Rust-based website with WebAssembly, dynamically generating HTML/CSS using procedural macros, hosted on shuttle.rs.

**Discord Bot** 

March 2023

Developed a Discord bot integrating TikTok's text-to-speech API for real-time voice channel message conversion and playback.