

# WYATT AVILLA

github.com/wyatt-avilla 

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## EDUCATION

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### San José State University

Aug 2025 - May 2027

Major: M.S Software Engineering, specializing in Software Systems Engineering

### University of California, Santa Cruz

Sept 2021 - March 2025

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, Shell, Nix, Lua

### Software & Tools

Git, Linux, GitHub Actions, Docker, NixOS, WebAssembly

## 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 - June 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.