WYATT AVILLA

github.com/wyatt-avilla
(408)506-2189
wyattmurphy1@gmail.com

EDUCATION

University of California, Santa Cruz *September 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

Programming Languages C/C++, Python (Pandas, NumPy), Rust, Bash, Lua
Software & Tools Git, Linux, GitHub Actions, CI/CD, WebAssembly, Docker, AWS

WORK EXPERIENCE

Python Developer Intern September 2024 - December 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 - September 2024, January 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

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 September 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.