

Mazin Sayed Amer

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Experience

Open Source Contribution

Brainrot Programming Language (Maintainer)

C, Yacc, Lex, Compiler Design, PyTest

- Implemented essential language features like functions and arrays in a meme-inspired programming language that gained 450+ stars on GitHub.
- Improved performance by optimizing parts of the codebase to use suitable data structures.
- Reviewed pull requests, ensured code quality, and helped onboard contributors.
- Resolved major issues like memory leaks and optimized overall memory management.

Collaborative Project

Code Reviewer

Python, ANTLR, PyTorch, Transformers

- Led the development of a code smell detector by training the GraphCodeBERT model to identify different smells such as God class, Data class, with 92% accuracy.
- Implemented a Java formatter using ANTLR to parse Java code and apply user-customizable style guidelines.
- Reduced code review time by automating the detection of common code smells and style inconsistencies.

Projects

Subcommands

Rust Library

Rust

- Developed a Rust CLI library that allows dynamic registration of subcommands in a centralized manner, downloaded 2500+ times.
- Provides an intuitive interface for defining CLI commands dynamically in a single location, improving automation workflow.
- Implemented fault-tolerant techniques for error handling and command suggestions.

HTTP Server

High-Performance Web Server

Rust, Asynchronous, Tokio

- Developed a high-performance asynchronous HTTP server in Rust using Tokio, handling up to 69.8K requests/sec.
- Optimized request parsing and response handling, reducing latency to an average of 5.46ms (min: 400µs, max: 24.36ms).
- Engineered a system that achieved a 100% success rate while processing over 2.09M requests in 30 seconds under load testing.

Skills

Languages: C/C++, Python, Rust, TypeScript, Java, Bash, Assembly

Web Development: React, Express.js, .NET

Infrastructure: AWS, Azure, Docker, CI/CD, Linux

Databases: SQL Server, MySQL, MongoDB

Software Engineering: Data Structures, Algorithms, Git, GitHub, GitHub Actions, Shell Scripting

Education

Helwan University, Cairo, Egypt

Sept 2021 - June 2025 (Expected)

Bachelor's of Computer Science (Software Engineering Department)