TIMOTHY MALONEY

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EDUCATION

Portland State University   Jan 2020 - June 2022
Bsc Computer Science

– Low level programming

Portland Community College   Sept 2018 - Jan 2020
PSU Transfer

– Computer Security

LANGUAGES

Rust ● ● ● ●   C ● ● ● ○   C++ ● ● ● ○   Python ● ● ● ○   Java ● ● ○ ○

ADJECTIVES

Persistent Debugger	Technical Generalist	Strong Communicator
Project Leader	Concurrent & Parallel	Apprentice Open-Sourceror
Codebase Adventurer	Performance Analyzer	Documentation Writer & Researcher

EXPERIENCE

Rust Compiler

– Added support for inline assembly on IBM's s390x architecture.

– Investigated performance implications of computing redundant debugging information; showed that caching led to negligible time improvements.

– Currently organizing all documentation on parallelism in the compiler.

Ruperf

– Performance analysis tool; emphasizes being informative and versatile.

– Developed a safe API for interacting with Linux performance event subsystem.

– Improved timer accuracy using intra-process communication.

– Added support for gathering cache-event statistics.

– Creator and maintainer of project's website.

Kartina

– Collaborative open-source art project combining deep-house and GPU shading.

– Plays song and renders image in parallel.

– Uses decoded mp3 data to compute pixel colors.

PSU Computer Action Team   Aug 2020 - Aug 2021

– First of 2020-21 cohort to hack into the "catacombs"; an area for experimentation with hardware and hacking.

– Built a script for gathering information on PSU windows machines and users.

– Information such as who is logged onto what machine, what processes are they running, etc.