Tim Severance

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Experienced software developer with a strong background in Computer Architecture, C++, Python and NFT

Experience

Utah Valley University - Computer Science Instructor

Sep 2022 to Present

- Created and delivered lectures for Advanced C++, Algorithms and Data Structures, Design Patterns, and Computer Architecture
- Developed GradeKit to automate the grading process for student assignments
- Exhibited strong software development expertise by designing, coding, and troubleshooting complex projects

Ironwood Experts LLC - Junior Software Developer

May 2021 to Dec 2021

- Developed and maintained software applications using python for data analysis and visualization
- Collaborated with cross-functional teams to define and design new features
- Optimized applications for performance and applied design patterns for improved scalability

Project Experience

kxi Compiler, Assembler, and VM

Jan 2021 to May 2022

A compiler for the kxi programming language

Technologies: C#, LINQ, .NET 6, ANTLR4

- Designed and implemented a compiler, assembler, and vm for the kxi programming language using .NET 6 and ANTLR4
- Developed a lexer and parser using ANTLR4 to generate an abstract syntax tree (AST) for intermediate and target code generation
- Implemented robust error handling and reporting for improved debugging and user experience

GradeKit Nov 2024 to Present

A tool using canvasapi to pull assignments from Canvas

Technologies: Python, PostgreSQL, SQL, InstructLab, sqlalchemy, Docker, ETL

- Implemented an ETL pipeline using Canvas' REST API to extract and transform Canvas data before loading it into PostgreSQL
- Utilized AI to provide experimental feedback on student submissions
- Deployed a docker image for easy setup and use by instructors

EZResume Feb 2025 to Present

A tool to beat the slog of applying to jobs by automating the process with a JSON resume

Technologies: Python, JSON, YAML, HTML, CSS, ETL

- Developed a dynamic resume generation system that extras and transforms JSON/YAML data into HTML and then PDF and DOCX formats
- Optimized the resume submission process by automating adjustments for specific job requirements, significantly increasing application efficiency
- Refined resume templates with adaptive designs tailored to unique job requirements

Education

Utah Valley University