ALEX KAISER
S O F T W A R E   E N G I N E E R

630-487-0872
alexkaiser@me.com
Raleigh, NC

https://www.alexjkaiser.com/
https://www.linkedin.com/in/alex-kaiser34/
https://github.com/alexkaiser34

SUMMARY

Versatile and innovative Software Engineer with 3+ years of experience in embedded systems, FPGA development, and full-stack web applications. Proficient in designing and implementing scalable solutions using VHDL, Verilog, Python, React, ASP.NET, TypeScript, C, and C++. Adept at collaborating with stakeholders to translate complex requirements into efficient, high-performance code. Experienced in configuration management, system optimization, and full software development lifecycle.

EXPERIENCE

Itron Inc.   **April 2024 – Present**
Embedded Software Engineer   **Raleigh, NC**

- Optimized embedded software with C++ and SQLite, ensuring performance and design compliance
- Resolved critical software issues through root cause analysis, improving system stability
- Enhanced CPU efficiency by profiling and refactoring code, presenting optimizations to leadership.
- Developed and optimized desktop applications in ASP.NET, improving functionality and performance.

DornerWorks Ltd.   **May 2021 – August 2023**
Software Engineer Co-op – FPGA/Secure Tech   **Grand Rapids, MI**

- Managed a team of engineers to design an application demonstrating hypervisor benefits
- Designed embedded hardware and software drivers using VHDL, C, Python, and the AMBA AXI communication protocol
- Accelerated machine learning algorithms by 100x by optimizing algorithms with engineers
- Directed software development efforts, leading meetings to drive project success
- Developed full-stack desktop applications with React, TypeScript, and Python, enhancing UX.

PROJECTS

Itron ToolSuite ASP.NET Desktop Applications   **Project Engineer**
Developed and optimized desktop applications for data retrieval from Itron's products via WiFi and USB. Designed new features to enhance functionality and improve debugging workflows for software engineers.

TI-MSP432 Real Time Operating System   **Engineer - Academic**
Created an embedded multi-threaded real time operating system using the MSP432 microcontroller. Designed the operating system, kernel, and scheduler using C and ARM Cortex M assembly.

EDUCATION

Grand Valley State University
Allendale, Michigan
August 2018 – January 2024

BS in Electrical Engineering
BS in Computer Engineering

- 3.9 GPA
- Honors College
- Business Minor
- Tau Beta Pi Engineering Honors Society
- Deans list every semester

TECHNICAL SKILLS

- C/C++
- Docker, AWS
- Python
- Git
- SQL/NoSQL
- VHDL/Verilog
- React, ASP.NET
- JavaScript/TypeScript
- Bash/Shell Scripting

PROFESSIONAL SKILLS

- Embedded System Design
- Hardware/FPGA Design
- Full Stack Design
- Project Management
- Customer Interaction