

Zac Haydock

Software Engineer

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Software engineer with experience in developing and debugging low level networking applications, performance-oriented implementations, and API integrations across various network protocols. Motivated professional with demonstrated leadership and mentorship skills.

TECHNOLOGY:

Programming Languages

- Proficient: C++
- Competent: Python, Java

Techniques

- Modern C++, multithreading, asynchronous design, socket programming, parallel programming, high performance computing

Libraries/Frameworks

- C++ Standard Library, Boost, Curl, gSOAP, CUDA

Protocols

- TCP/IP, HTTP, gRPC, RTSP, SOAP

WORK EXPERIENCE:

Johnson Controls –Fishers, IN

Senior Software Engineer

February 2023 - Present

Software Engineer II

January 2020 – February 2023

- Security Device integration team
- Implement cross platform C++ server code for exacqVision video management system facilitating network communication with IP based network devices.
- Design and implement new features including AI analytic metadata and event processing.
- Integrate with 3rd party open-source libraries such as curl, gSOAP, and Boost.
- Lead efforts to continue exacqVision's conformance to open standards such as ONVIF.
- Integrate with 3rd Party HTTP APIs. Engage and facilitate technical communications with external global organizations.
- Collaborate with internal development teams over internal interfaces and protocols.
- Lead automation testing efforts for security device component functionality by integrating with gRPC interfaces.
- Debug legacy code, low level socket behavior, and multithreading issues.
- Provide C++ expertise and leadership through peer reviews, training new team members, and intern mentorship. Implement and advocate for Modern C++ techniques. Engage in and emphasize test driven development via unit tests.

EDUCATION:

Purdue University, IUPUI – Indianapolis, IN

Fall 2017 - December 2019

Master of Science in Computer Science, GPA: 3.86

- Concentration: High Performance Computing, Parallel Algorithms, GPGPU

Purdue University Fort Wayne – Fort Wayne, IN

May 2016-May 2017

- Graduate prerequisite computer science coursework

University of Saint Francis – Fort Wayne, IN

Fall 2012-May 2016

Bachelor of Science in Mathematics, GPA: 4.0

Minor in History

- School of Liberal Arts and Sciences Valedictorian, Dean's List, Junior Marshal, President Academic Scholarship, Football Athletic Scholarship, Outstanding Achievement in Mathematics
- USF Football Team: Offensive football player, 2015 Mid-States Football Association All-Scholar Athlete

PROJECTS:

Graduate Applied Research Project*Fall 2018 - December 2019*

- Investigation of methods to increase GPU utilization and efficiency while computing tasks needed for deep learning, specifically those found in convolutional neural networks, via dynamic GPU task scheduling.
- C/C++, CUDA, Deep Learning

ADDITIONAL EXPERIENCE:**Wayne High School – Assistant Varsity Football Coach, Fort Wayne, IN***Fall 2022-Fall 2023*

- Offensive Coordinator
- Prepare game plans, organize practice structure, provide mentorship and leadership to student athletes.

GMS Distribution – Warehouse Associate, Fort Wayne, IN*February 2017-August 2017*

- Assembled power distribution boxes, developed training manuals, and managed inventory for small business.

Regal Cinemas Coldwater Crossing 14 – Floor Staff, Fort Wayne, IN*January 2016- July 2016*

- Concessionaire, usher

Quantem Aviation Services – Ramp Agent, Fort Wayne, IN*May 2016-September 2016*

- Unloading UPS parcel units from aircraft, marshalling aircraft onto ramp

Woodlan High School – Assistant Varsity Football Coach, Woodburn, IN*Fall 2016*

- Taught fundamentals and leadership skills to high school athletes

U.S. Department of the Treasury - Summer Intern, Washington D.C*Summer 2015*

- Office of the Chief Information Officer – Supported Treasury website development in agile development setting, analyzed metadata taxonomies, and term sets for the Treasury Intranet