TYLER PERKINS

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WORK EXPERIENCE

Etactics, Hudson, Ohio   *May 2022*
Senior Software Developer

· Led department-wide architecture initiatives as the go-to problem solver, standardizing designs and reviews that cut defects, sped delivery, and raised reliability across legacy and greenfield systems
· Led the architectural design and team implementation of a new GRC/eLearning platform, establishing modern standards in performance, maintainability, and security while guiding junior developers through code reviews and design sessions
· Implemented a SAML2/OIDC identity broker for legacy applications
· Implemented a Fine Grained Authorization component for our application, providing low latency responses and secure authorization checks with record level resolution
· Maintain legacy applications, providing quality of life updates and security fixes as required

Kent State University, Kent, Ohio   *January 2020 - August 2020*
Software Developer

· Analyzed client needs for an internal attendance application, and developed a web application in 3 months leveraging ASP.NET Core to meet client requirements, delivering an application still in use with two thousand concurrent users.

EDUCATION

Georgia Institute of Technology, Atlanta, Georgia   *January 2024*
Masters of Science : Major Computer Science

Specializing in Computing Systems

Selected Coursework: Distributed Systems, Computer Networking, Graduate Operating Systems

Kent State University, Kent, Ohio   *August 2019 - May 2022*
Bachelor of Science : Major Computer Science   Overall GPA: 3.5

Specialized in Embedded Systems and Information Security

Selected Coursework: Operating Systems, Design and Analysis of Algorithms, Systems Programming

TECHNICAL STRENGTHS

Enterprise Software
Spring Boot, MySQL, Vue/Nuxt, Docker, Kubernetes, Terraform, AWS (ECS, EC2, RDS, Bedrock) Gitlab CI/CD
Embedded & Systems
C, C++, x86 Assembly, microcontrollers (ESP32, RP2040, ATMega328P) Linux Internals, IoT development, low-level I/O (SPI, I^2C, UART), Software Defined Radio (RTL-SDR, HackRF)
Mathematics & Algorithms
Distributed Systems, Group Theory and Category Theory, Risk Modeling, Cryptography

PROJECTS

Satellite Image Capture Equipment *December 2024*

Built a self-contained system (Raspberry Pi + HackRF/RTL-SDR) to receive/decode NOAA/METEOR-M2 signals in real time. Integrated custom dipole antenna and GNU Radio pipeline to demodulate QAM/APT and produce images end-to-end.

Multi-Paxos with Stable Leaders *Feb 2024 – Mar 2024*

Implemented consensus with stable leader election and log garbage collection; ensured exactly-once command execution, resilience to minority failures/partitions, and reduced latency via proposal batching.

GRC/eLearning Modulith *2023*

Architected and implemented a Spring Boot modulith for a complex GRC and eLearning platform. Proven performance handling 100k+ events a day from third-party applications (AWS, ADP, etc.), providing real-time continuous compliance states across 30+ regulatory frameworks. Delivered full feature parity with the legacy system while improving maintainability, performance, and resource efficiency. Integrated fine-grained authorization and modern identity federation (SAML2/OIDC), creating a scalable foundation for future expansion.

Homelab *March 2020*

A self-hosted homelab cluster running on a combination of retired enterprise and commodity hardware. Striving to replicate an enterprise data center at home. Implemented a self-hosted S3, AWS lambda-like, and Kubernetes cluster running over 70 containers with two availability zones.

Deaf Transcription Application *March 2021*

Implemented a near real-time transcription application utilizing a self-hosted transcription transformer model for deaf family members. Leverages Telnyx for multi person transcription utilizing phone calls. Highly available on self-hosted hardware and utilized daily by several family members.

Phone Call Load Balancer *January 2024*

Developed an Application Load Balancer for incoming phone calls to call centered applications utilizing Telnyx. Provides flexible routing decisions logic based on time of day, availability, call location, etc.