Xavier Ruyle

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EDUCATION

University of Kansas

Lawrence, KS

B.S Computer Science, GPA: 3.96

Jan 2026 (Expected)

- Cybersecurity Certificate, Dean's List
- Relevant Coursework: Software Reverse Engineering, Operating Systems, Cyber Defense, Communications Networks, Artificial Intelligence, Data Structures and Algorithms, Software Engineering I & II, Embedded Systems

EXPERIENCE

Software Engineering Intern

May 2025 – Aug 2025

Union Pacific

Omaha, NE

- Developed and deployed a Java Spring microservice to retrieve locomotive geofence entry/exit events via RESTful APIs, integrating with upstream event systems in a distributed architecture; built a responsive Angular frontend for real-time monitoring.
- Developed a production ready service which periodically downloads locomotive camera images with GPS metadata for the Geospatial team. Built using Python and deployed to several locomotive machines in the field.
- Implemented automated performance checks on embedded locomotive systems using OpenCV, reducing manual diagnostic time; integrated Redis for caching and JMS for distributed messaging.
- Automated locomotive event video retrieval, reducing investigation time and minimizing potential legal costs.

Web Development Intern

Sep 2023 – Aug 2024

National Association of Insurance Commissioners (NAIC)

Kansas City, MO

- Implemented 1000+ website revision requests from the communications department using Drupal.
- Deployed front end code changes to the production environment for 3 NAIC websites using AWS.
- Redesigned and maintained 5 new pages to enhance website functionality and user experience.
- Developed a Retrieval-Augmented Generator (RAG) to query and summarize several company website documents.
- Managed project tasks and collaborated with team members using Jira, adhering to Agile methodologies.

Information Technology Intern

Jun 2022 – Aug 2022

Americo Financial Life and Annuity

Kansas City, MO

- Developed automation scripts to streamline imaging workflows, increasing imaging efficiency.
- Managed computer imaging and deployment, demonstrating effective cross-department communication.

Projects

Douglas County Ballot Drop Boxes - Capstone | Python, Django, RPi, OpenCV, AWS | Jan 2025 - May 2025

- Engineered a scanning system to achieve a 99% scan rate of envelopes deposited into Douglas County drop boxes.
- Deployed a full-stack Django webapp to AWS EC2, streamlining drop box info management for election officials.
- Implemented a real-time video streaming pipeline between the Raspberry Pi and AWS-hosted webapp, improving security surveillance.
- Designed, documented, and implemented a system architecture for Raspberry Pi, cameras, scanners, and webapp.

Full-Stack Forum Web Application | Python, HTML, CSS, Flask, SQLite

Aug 2024 – Dec 2024

- Built a course-based forum app with user auth, thread creation, and discussion tools using Flask and SQLite.
- Designed RESTful endpoints and integrated SQLite to manage users, courses, and posts.
- Collaborated in a 5-person Agile team using Git and GitHub for version control and task tracking.

3D Graphics Voxel Engine | C++, OpenGL, GLSL

Apr 2023 – Jul 2023

- Designed an efficient graphics engine capable of rendering millions of voxels generated using Perlin Noise.
- Developed a high performance meshing algorithm and enhanced processing speed using multi-threading.
- Constructed a model loading system using the hapPLY open-source .ply parser.

TECHNICAL SKILLS

Languages: C++, C, Java, C#, x86, Python, Javascript, Racket, GLSL

Web: Flask, Django, Spring, AWS, ASP.NET, Angular, React, Drupal, CSS, Tailwind, HTML, Beautiful Soup, Selenium Other: Raspberry Pi, Jenkins, Maven, Wireshark, OpenCV, GIT, Bash, Oracle, SQLite, Linux, Ubuntu, Debian, LATEX, JSON, Regex, Pandas, Raylib, OpenGL, Ollama, Llama3, ChromaDB, Langchain, Agile, Jira, Slack