Ryan King

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ABOUT

Ryan King is a spouse, parent, Jayhawk, and professional shower singer. They have a wealth of knowledge and experience as an information technology professional and engineer, and often apply their skills to the administration, automation, development, and monitoring of systems and processes. They possess excellent technical and soft skills combined with a proven track record of exemplary end user experience, increased system reliability, and resolution of complex issues. A native of Lawrence, KS, Ryan is an avid college basketball fan and music lover.

TECHNICAL EXPERIENCE

Edward Jones — *Engineer III* NOVEMBER 2022 -

Assemble, configure, install, maintain & tune complex infrastructure components. Analyze, design, code & document programs and enhancements. Provide guidance on the business impact of the systems supported, development of best practices, & IS processes and tools.

The Purple Guys — *Field Systems Analyst II* MARCH 2022 - AUGUST 2022

Implement, maintain, and support IT systems and infrastructure for multiple clients. Resolve complex server, networking, software, and hardware issues as point of escalation for peers. Foster and maintain client-service provider relationships.

University of Kansas — *Senior IT Support Technician* JULY 2018 - MARCH 2022

Manage workstations, servers, and software for several university departments' faculty and staff. Hardware repair, deployment, and inventory. Application imaging and deployment. Large-scale project design and management.

BestMacs — *IT Specialist* MAY 2017 - JULY 2018

IT systems design, maintenance, and support for multiple clients. Hardware installs, application packaging and deployment, data backup and recovery. Support ticket distribution, social media management, marketing, and technical writing.

Apple, Inc — *Senior AppleCare Advisor, Mac+* MARCH 2012 - APRIL 2017

Advanced iOS and Mac troubleshooting as point of escalation for peers. Diagnostics and log collection and review. Creation and delivery of training content in support of lower level technicians.

OTHER EXPERIENCE

Hilltop CDC — *Board of Directors* JANUARY 2018 - JANUARY 2023

Serve on committees organizing special events and supporting teachers. Participate in budget planning and approval processes. Help guide direction of childhood development center through participation in regular board meetings.

First Presbyterian Church — *Director of Youth Ministries* AUGUST 2017 - APRIL 2022

Curriculum design and implementation. Conflict resolution. Volunteer recruitment and training. Youth mentorship. Staff and parent collaboration. Fostering relationships with local businesses for event organization and fundraising. Project management.

CERTIFICATIONS

Apple Certified Macintosh Technician

Apple Certified Support Professional

CompTIA IT Fundamentals+

Linux Essentials Certification

EDUCATION

Ministry Leading Initiative — *Certificate of Commissioning* AUGUST 2017 - MAY 2019

University of Kansas — *Bachelor of Music* AUGUST 2007 - MAY 2011

SKILLS

Adaptation, Agile, AI, Ansible, automation, AWS, Azure, bash, capacity planning, CDN, CI/CD, CLI, cloud computing, collaboration, communication, complex troubleshooting, containerization, creativity, debugging, DevOps, DHCP, DNS, Docker, documentation, HTTP/S, Go, incident monitoring, infrastructure, Jamf Pro, JavaScript, JIRA, Kanban, Kubernetes, Linux, load balancing, macOS, mainframe, MDM, network administration, on-call, Powershell, problem solving, Python, remote work, root cause analysis, scripting, Scrum, security, site reliability engineering, soft skills, SQL, systems administration, technical support, testing, time management, virtual computing, vulnerability management, web applications, Windows

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PROJECT EXPERIENCE

Legacy Application Disaster Recovery Exercise — *Project Lead*

Edward Jones, 2024

This initiative revived disaster recovery processes for Kofax, a legacy faxing system critical to enterprise operations but running unmaintained after the sudden departure from the firm of the application's sole subject-matter expert. With no vendor support and fragmented, archaic documentation, I reverse-engineered the platform's architecture through sandboxed trial and error testing, identifying dependencies between SQL databases across multiple data centers, and diagnosing potential points of failure across dozens of administrative and managed servers, both Linux and Windows-based. Supervising resources from six cross-functional teams including network, database, and security administrations, I designed a phased failover plan to migrate servers and data to a secondary data center, minimizing downtime through PowerShell-automated workflows. This preparation took several weeks of work and careful coordination with both peers and upper management.

The live exercise itself occurred over a 48 hour period, during which time sequential server migrations, database replication, and 24-hour load testing occurred. A fax routing failure emerged during stress tests, necessitating the mobilization of four engineers across time zones to troubleshoot and resolve the issue via careful analysis of error logs, partial backouts, and adjustments to the configuration of dependent applications. Post-recovery, I authored comprehensive documentation drawn from my experiences, aligning legacy processes with modern CI/CD principles and hopefully resulting in significant reductions to recovery exercise time in the future. This documentation includes, among other refinements, extensive lower environment testing, automated rollback procedures, and a Grafana monitoring dashboard template for real-time health checks.

Self-Hosted Real-Time Gaming Platform — *Developer & Maintainer*

Personal Project, Ongoing

This Dockerized FoundryVTT instance, hosted on a custom-built TrueNAS SCALE homelab server, supports 10+ concurrent users in low-latency tabletop gaming sessions. The homelab's hardware configuration leverages RAID-Z2 storage for redundancy and VLAN isolation for security, while Cloudflare Tunnels enable secure remote access via a custom domain. The TrueNAS operating system itself is Debian-based, and the custom applications running atop it are deployed via YAML.

A self-hosted solution allows for integration with broader homelab services. For example, a custom Discord bot written in Python and hosted on the server triggers automated backups before updates, and Uptime Kuma monitors and reports on WAN outages and WebSocket stability. Security measures include multi-factor authentication (MFA/2FA) encrypted credential storage, and audit logs for session tracking.

The FoundryVTT server application is written in JavaScript, and additional familiarity requirements include JSON for web application data transfer, and HTML & CSS for customizing the web-based GUI. To enhance gameplay, I engineered a WebRTC audio/video chat system using LiveKit, configuring an embedded TURN server with integrated authentication to reduce latency to <50ms, achieving performance comparable to commercial platforms like Discord, an application widely used for the same purpose, while minimizing players' network strain and streamlining the experience by condensing all necessary features into a single service.o enhance gameplay, I engineered a WebRTC audio/video chat system using LiveKit, configuring an embedded TURN server with integrated authentication to reduce latency to less than 50ms on average, achieving performance comparable to commercial platforms like Discord, an application widely used for the same purpose, while minimizing players' network strain and streamlining the experience by condensing all necessary features into a single service.

Cross-Platform Automation & Monitoring Bot — *Developer & Administrator*

Personal Project, Ongoing

A Python-based Discord bot serving 100+ users across five independently managed servers, this project bridges homelab management and community engagement. Hosted on my TrueNAS home server and deployed within a Docker container, the bot automates media pipeline requests - parsing natural language commands to trigger in excess of 200 monthly public domain content acquisitions via *arr APIs. It also acts as a monitoring frontend, forwarding SMART disk alerts, ZFS pool health stats, and service outages from both Uptime Kuma and Prometheus to Discord, averaging less than one minute of latency.

The bot's modular design allows for environment-specific configurations and serves as a microcosm for distributed systems engineering. Frequently implemented features include automated community moderation and administration, member activity notifications, and a music player, while a more targeted deployment designed for homelab integration validates nightly backups and provides error reporting. Updates and periodic restarts are automated via custom bash scripts.

Responsive Portfolio Static Site Infrastructure — *Web Developer & DevOps Engineer*

Personal Project, Ongoing

This Hugo-based static site, deployed globally via Cloudflare Pages, serves as a blueprint for modern web infrastructure. Built with Go and necessitating familiarity with Node.js, HTML, and CSS, the site serves as a personal portfolio and record of recent work and accomplishments. Infrastructure-as-code practices govern DNS entries via Terraform, SSL certification via Let's Encrypt, and version control via Git.

The site supports Google Analytics, can be translated into multiple languages, is fully responsive, and has a pleasant, intuitive interface. After careful consideration, Cloudflare was chosen as a hosting provider over a self-hosted web server due to Cloudflare's available bandwidth and excellent track record in terms of reliability and uptime. Iterative site improvements are tested in a local development environment before being pushed to a repository and committed.