RYAN KIRSCH

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PERFORMANCE SUMMARY

Innovative Lead Backend Engineer with over 12 years of experience across SDLC, specializing in cloud architecture, CI/CD pipelines, and enterprise-scale DevOps solutions. Proven success in driving operational excellence, improving software delivery velocity, and implementing cutting-edge cloud-native systems. Adept at leading cross-functional teams to align technical solutions with business goals.

CORE COMPETENCIES

- IT Project Management (Agile)
- Enterprise CICD Strategy
- Deployment Automation
- API Development & Design
- eCommerce Solution Engineering
- System Development & Delivery
- Team Leadership
- Technical Writing/Documentation
- Infrastructure as Code (IaC)
- Tech Budget Management
- Cloud architecture (AWS, GCP)
- Monitoring & Logging

EDUCATION & CERTIFICATION

Bachelor of Arts, Public Relations, University of Wisconsin-Madison, Madison, WI
Full Stack Web and Mobile Development Certificate, Nucamp Coding Bootcamp
Python Data Structures & Algorithms, PostgreSQL with Python, & DevOps Certificate, Nucamp Coding Bootcamp
AWS Certified Solutions Architect Associate, Amazon Web Services
AWS Certified Data Engineering Associate, Amazon Web Services
AWS Certified Cloud Practitioner, Amazon Web Services

TECH STACKS

HTML, CSS, JavaScript, TypeScript, Bootstrap framework, Tailwind CSS, MongoDB, Express, Mongoose, React & React Native, Node.js (MERN Full Stack), NextJS, PostgreSQL, Python, Flask, Django, FastAPI, NPM, NumPy, Pandas, SQLAlchemy, PyPi, Yarn, bash, Postman/Insomnia, Android Studio, AVD Emulator, Expo SDK, Firebase, AWS (ECS/ECR, EKS, FarGate, EventBridge, S3, DynamoDB, SQS, SNS, Lambda, API Gateway, EC2, IAM, KMS, Kinesis), boto3, Serverless Framework, Azure, Google Cloud Platform (GCP), Docker, Kubernetes, REST API's, GraphQL, Neo4j, Git, GitHub, BitBucket, Jira, VSCode, PyCharm, Replit, Codepen, OOP, SaaS (HubSpot, Shopify, Salesforce), Data Structures, UiPath Studio, Robotic Process Automation (RPA), web3 & blockchain development, ThirdWeb, Moralis

PROFESSIONAL EXPERIENCE

THE PHILADELPHIA INQUIRER, Philadelphia, PA
Lead Backend Software Engineer, *September 2022 - Present*

- Spearheaded migration of Email Service Provider from Salesforce Marketing Cloud to Marigold SailThru; architected end-to-end data pipelines with Salesforce Service Cloud, delivering email templates and subscriber workflows one month ahead of schedule and realizing $100K+ in annual savings
- Led migration off the Informatica ETL platform by reengineering pipelines in Python/PySpark, boosting workload resilience by 50% and reducing costs by $120K/year
- Architected and deployed serverless ETL pipelines on AWS (Serverless Framework), orchestrating S3, Lambda, EventBridge, SQS, and DynamoDB to replace legacy subscription and billing systems and enable real-time Salesforce→SailThru synchronization via an event-driven architecture
- Developed and launched a privately-hosted AI application enabling chat-based Retrieval-Augmented Generation (RAG) over a proprietary historical archive (1977–present)
- Integrated an internal HR chatbot with the OpenAI API, enabling Slack-based RAG access to the company handbook, PTO metrics, performance goals, org charts, and general policy queries
- Improved site reliability and security by implementing DevSecOps best practices to minimize Salesforce-induced outages and bot attacks; optimized checkout flow to increase conversion by 12% YoY
- Led migration from legacy print subscription management to a cloud-first serverless solution, cutting operational costs by 75% and reducing manual production/distribution workload by 50%

LONGEVITY CONSULTING, Washington, DC
Software Engineer, *August 2021 – September 2022*

- Architected full stack GRC platform with React, Django, and FastAPI for use with dozens of partner government agencies, complete with GraphQL schema, serverless deployment on AWS FarGate, and CICD pipelines
- Led globally distributed, agile development team through full SDLC lifecycle
- Developed and implemented RPA solutions using UiPath Studio for internal use cases, and worked with partner agencies to identify and automate tasks saving an average of $3,000+ per employee per year
- Assisted US Dept. of Education in maintaining and expanding their program offerings to at-risk youth via Drupal 7 to Drupal 9 migration, AWS/GovCloud infrastructure compliance, PIV/SAML authentication shift, and general site overhaul

NUCAMP CODING BOOTCAMP, Seattle, WA
Instructor & Career Coach, *December 2021 – December 2022*

- Teach 4-5 week cohorts with up to a dozen web development students, hosting weekly live 4 hour workshops on Saturdays. Troubleshoot and debug alongside students when they encounter problems
- Grade weekly assignments and workshops, and check in with students on a daily basis to ensure material and lessons are understood
- Strive to maintain high engagement and student satisfaction, collected via anonymous weekly feedback surveys, which is a critical KPI for future cohort selection

LOXE INC, Los Angeles, CA
Software Engineer, *July 2021 – October 2022*

- Built a decentralized mediation platform on the Cardano blockchain to advance the future of mediation access and transparency
- Developed front end React assets & components using Tailwind CSS, and GraphQL schema components to facilitate the ease of signing up as a mediator or mediation party, selecting dates, paying for services and receiving funds
- Integrated crypto wallets such as CCVault, Nami, & Flint along with KYC compliance technology via SumSub to platforms for payment and reporting purposes
- Collaborated with a globally disparate, multicultural team to build initial MVP, pitched to multiple different panels with Cardano Project Catalyst for seed funding

ASSET STRATEGIES INTERNATIONAL, Rockville, MD
IT Project Manager, *September 2011 – August 2021*

- Designed and built secure, scalable, lightweight services, features, and applications for the web using C# and SQL - including some light front-end work
- Worked with business and development team to ideate, iterate, and prototype new capabilities for system platform
- Orchestrated key architectural decisions on CRM and eCommerce integration solution that focused on customer-centric experience
- Researched, coordinated, and managed database migration from a proprietary system to HubSpot CRM, Shopify platform, coupled with proprietary business workflow component for seamless data sync
- Formulated new system testing, implementation, and training plans
- Presented weekly cross-team project updates to stakeholders and led collaboration between teams to keep project on target and on budget