

Robert Maxwell

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PROFESSIONAL SUMMARY

Principal Production Engineer with 15+ years of experience optimizing cloud infrastructure, automation, and developer experience at scale. Proven expertise in Kubernetes, AWS/GCP, and infrastructure-as-code, consistently delivering 99.9%+ uptime for systems serving millions of users. Specialized in cost-effective architecture design, AI/ML infrastructure enablement, and security-first automation with a track record of reducing operational friction while maintaining robust security postures.

TECHNICAL HIGHLIGHTS

- **Scale & Reliability:** Maintained and scaled Kubernetes (EKS) clusters to 1,000+ nodes with 99.9%+ uptime for critical production systems
 - **Cloud Migration:** Led Elasticsearch migration from legacy self-hosted infrastructure to Elastic Cloud, enabling vector database integration for AI-driven search and reducing operational overhead by 40%
 - **Infrastructure as Code:** Standardized multi-environment Kubernetes deployments using Terraform and Ansible, improving deployment consistency and reducing configuration drift by 60%
 - **Security & Compliance:** Implemented security standards across infrastructure while maintaining streamlined developer experience and meeting various security compliance requirements
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WORK EXPERIENCE

Udemy

Principal Production Engineer – Dublin, Ireland – February 2022 - Present

- Design and maintain highly available infrastructure supporting millions of learners globally, actively balancing cost and performance trade-offs for scalability and reliability
- Maintain 99.9%+ uptime for critical production systems including Kubernetes clusters scaling to 1,000+ nodes across multiple AWS regions
- Led migration of Elasticsearch from legacy self-hosted systems to Elastic Cloud, reducing operational overhead by 40% while enabling vector database integration for AI-powered search capabilities
- Collaborated with Machine Learning and Search teams to implement production-ready vector search using Elastic Cloud, supporting AI-driven workloads with sub-100ms latency requirements
- Championed proof-of-concept AI integrations with emphasis on production readiness, service resilience, and operational excellence

- Provisioned and managed infrastructure using Terraform and Ansible, ensuring configuration consistency, idempotency, and version-controlled infrastructure across all environments
- Standardized Kubernetes (EKS) deployments across development, staging, and production environments, reducing deployment errors by 60% and simplifying cluster updates
- Implemented security controls aligned with SOC2 and industry standards while minimizing developer friction through automation and self-service tooling
- Evolved internal tooling and automation frameworks to support 99.95% service SLAs and improved operational efficiency by 35%

Mastercard

Principal Software Engineer – Dublin, Ireland – June 2012 - February 2022

- Abstracted infrastructure complexities through platform engineering, reducing application deployment time from days to hours for development teams
- Maintained stringent security standards throughout deployment pipelines while minimizing developer disruption through automated security scanning and policy-as-code
- Supported cloud-based deployments across hybrid infrastructure environments spanning on-premises data centers and AWS
- Reviewed and implemented architectural changes across complex infrastructure ecosystems supporting payment processing systems
- Ensured high availability of mission-critical applications by providing 24/7 platform support and incident response for key business units
- Conducted technical workshops and authored comprehensive runbooks for global support teams, improving mean time to resolution by 45%
- Provided direct customer support and platform demonstrations to enterprise clients across EMEA region
- Led training initiatives to establish and grow a 15-person support team within the Dublin operations hub
- Delivered face-to-face training sessions and technical demos to clients across multiple countries

Zapa Technology

Operations Engineer – Dublin, Ireland – May 2011 - May 2012

- Managed all IT systems and infrastructure supporting company operations across Dublin and remote offices
- Analysed operational processes and implemented improvements that enhanced customer experience and reduced ticket resolution time by 30%
- Maintained on-site server infrastructure and customer-provisioned hardware with 99.5% uptime SLA

IBM

Server Systems Operations Engineer – Dublin, Ireland – January 2006 - May 2011

- Responsible for maintenance and operation of enterprise IT systems supporting 500+ employees across EMEA

- Conducted operational analysis identifying service improvement opportunities, resulting in 25% reduction in system downtime
 - Oversaw maintenance of on-site data centers and customer-provisioned infrastructure across multiple facilities
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EDUCATION

Dublin City University – Dublin, Ireland – July 2006

Bachelor of Science in Computer Applications

- Member of Redbrick (Computer Networking Society), collaborated on inter-college network infrastructure projects
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CERTIFICATIONS

- **Certified Kubernetes Administrator (CKA)** – Cloud Native Computing Foundation
 - **Certified Linux Foundation System Administrator (LFCS)** – Linux Foundation
 - **HashiCorp Certified: Terraform Associate** – HashiCorp
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TECHNICAL SKILLS

Cloud Platforms & Infrastructure: Amazon Web Services (AWS), Google Cloud Platform (GCP), Kubernetes (EKS, GKE), Docker, Linux (RHEL, Ubuntu, Amazon Linux)

Infrastructure as Code & Automation: Terraform, Ansible, Helm, Chef, Cookiecutter, Infrastructure as Code (IaC)

CI/CD & DevOps Tools: Jenkins, GitHub Actions, GitLab CI, ArgoCD, Flux

Observability & Monitoring: Datadog, Splunk, Elasticsearch, Prometheus, Grafana, CloudWatch

Programming & Scripting: Python, Bash, Golang, Ruby, Groovy, Java, SQL, YAML

Databases & Storage: Elasticsearch, PostgreSQL, MySQL, Redis, S3, EBS

Security & Compliance: SOC2, Security Automation, Secrets Management (Vault), IAM, Security Scanning

Methodologies: Site Reliability Engineering (SRE), DevOps, Agile, Incident Management, Troubleshooting, Change Management

INTERESTS

- Adventure travel to off-the-beaten-path destinations
- Trail running and marathon training
- Following Irish cricket and supporting the national team