Charles Lui

Senior Software Engineer

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Profile Summary

Highly adaptable senior software engineer with over 12 years of experience specializing in object-oriented programming using C# and .NET with extensive experience in designing, and developing modern scalable applications and RESTful APIs. Quick learner that has led technical projects, optimized complex SQL database interactions, and implemented robust CI/CD pipelines and infrastructure as code. Adept at cross-functional team collaboration, troubleshooting systems, and driving quality and process improvements within Agile environments.

Technical skills

Languages: C# (.NET), PowerShell, Python, Shell script

Databases: SQL: MS SQL Server, MySQL / NoSQL: DynamoDB

Version Control Systems: Git, GitHub, GitLab, BitBucket

CI/CD: AWS CodeBuild, CodePipeline, TeamCity

Servers: Windows Server, Ubuntu/Linux, SSH, Putty, Nginx

Cloud: AWS (including: Lambda, S3, EC2, ECS, ECR, Kinesis, IAM, SNS, SQS, CDK,

DynamoDB, RDS, CloudFormation, CodeBuild, CodePipeline, CloudWatch)

Development Tools: Visual Studio, VS Code, Docker, REST APIs, Postman, Web DevTools,

SQL Server Management Studio, SQL Server Reporting Services, MySQL Workbench

Monitoring & Logging: Datadog, Sumo Logic, PagerDuty, CloudWatch Project Management & Collaboration: Jira, Confluence, Trello, Slack

Education
Oregon State
University
B.S. in
Computer
Science (2013)

Languages
English: Fluent

Professional Experience

Eleven Software - Software Engineer

11/2014 - Present

- Designed and implemented integrations between networking hardware APIs and SaaS backend code (C#),
 making the system more extensible and modular to work with the latest enterprise customer hardware.
- Led technical projects within the team and collaborated across teams, driving the successful delivery of project milestones and shared company objectives.
- Implemented a time series reporting project, **designing and implementing scalable infrastructure** using microservices and an event-driven architecture.
- Revamped and modernized a legacy monolith C#/.NET application, significantly improving performance, long-term maintainability, and quantifiable cost savings.
- Developed and consumed REST APIs, enabling microservice interactions and critical integrations.
- Maintained a critical Windows service application on AWS EC2's to process high-volumes of network packets,
 ensuring sustained performance and reliability for customers.
- Optimized and managed CI/CD pipelines, **improving build and deployment efficiency for the entire team**.
- Created infrastructure as code (IaC) using AWS CloudFormation and CDK to automate the provisioning and management of cloud resources.
- Performed code reviews, enforcing code quality standards while providing constructive feedback to peers.
- Mentored and onboarded new team members, accelerating their productivity and team integration.
- Responded promptly to production incidents and handled emergency on-call situations, **minimizing system** downtime and critical business impact.
- Analyzed technical requirements and defined project scope and deliverables, **ensuring clear alignment and realistic milestones** for software projects.
- Authored technical documentation and system architecture diagrams, improving knowledge transfer and simplifying the onboarding process.
- Performed root cause analysis and implemented solutions for complex system problems, **resolving recurring** issues and improving system stability.
- Performed data analysis on **logs**, **metrics**, **and application performance data** to identify trends and anomalies, **proactively improving system health and performance**.