Qi Dang

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Cloud Software Engineer

An innovative Cloud Software Engineer with over **3 years** of experience specializing in designing, building, maintaining, and optimizing cloud-based applications and backend systems across AWS, Azure, and GCP. Skilled in software development, full stack engineering, cloud infrastructure, and automation, delivering high-quality solutions using Python, Node.js, and React. Proven track record in leading the development of automated CI/CD pipelines, integrating cloud monitoring and logging solutions, and streamlining deployment processes to enhance operational efficiency, reliability, and security. Experienced in designing and implementing APIs, leading feature development, and collaborating with cross-functional teams to deliver high-impact solutions. Key contributor to launching large-scale distributed systems like <u>HP Anyware for Windows 365</u> in partnership with Microsoft, ensuring scalable, reliable, and repeatable performance. Passionate about emerging web technologies, DevOps practices, and building ergonomic APIs to automate processes, improve system reliability, and deliver seamless user experiences while reducing operational overhead.

Key Skills

Software Development Life Cycle (SDLC) | Cloud Engineering | Web Technologies | Distributed Systems | Microservices Architecture | Infrastructure as Code (IaC) | DevOps | Agile | Project Management | Troubleshooting | Problem Solving

Technologies and Tools

- Programming Languages: Python, JavaScript, Bash, PowerShell, SQL
- Cloud Computing:
 - o AWS: IAM, VPC, EC2, S3, RDS, DynamoDB, CloudWatch, SES, WAF, ELB, Lambda, EKS
 - Microsoft Azure: IAM, Virtual Network, Virtual Machine, CosmoDB, App Service, App Gateway, Storage account, Key Vault, Azure Monitor, AKS
 - o GCP: IAM, VPC, Compute Engine, Cloud Storage, Cloud Monitoring, GKE
- Web Development: React, Node.js, Express.js, Django, Flask, Redux, Redis, HTML/CSS
- Databases: MongoDB, PostgreSQL, MySQL
- DevOps & Automation: Terraform, Ansible, Docker, Kubernetes, TeamCity, GitHub Actions, Jenkins
- Event Streaming: Kafka
- Testing & Best Practices:
 - o Techniques: Unit Testing, Integration Testing, Test-Driven Development (TDD), Load Testing
 - o Tools: unittest, pytest, JTest, Jest

Work Experiences

HP Inc, Vancouver, BC

January 2023 – Present

Cloud Software Engineer

- Key contributor to the launch of <u>HP Anyware for Windows 365</u>, a joint HP/Microsoft project, collaborating with **cross-functional** teams to build **mission-critical** features and ensuring scalability and reliability.
- Developed customer-facing web applications using **Node.js** and **React**, leveraging **Docker** and **Azure** services to create elegant user experiences and intelligent orchestrations.
- Led **technical design** and implementation for key features, including **RESTful API** design, optimizing system algorithms to enhance processing efficiency by **30-70%** and improving production operation.
- Led **troubleshooting** and **incident management** by designing and implementing **logging** and **monitoring** solutions with **Azure Monitor**, which enhanced system observability and reduced debugging time by **50%**.

- Contributed to the cloud workload management by integrating Microsoft Graph API, implementing a batching
 mechanism that reduced API calls by up to 80%, significantly improving data upload performance and resource
 efficiency.
- Developed and managed marketplace products on **AWS** and **GCP**, implemented automated **CI/CD** pipelines with **TeamCity** and **Ansible** to build cloud images, ensuring users had seamless access to the latest product versions.
- Established robust rollback mechanisms to quickly revert to previous versions in case of deployment errors, minimizing downtime and maintaining service reliability.
- Contributed to the architecture, design, and testing of various system components, ensuring reliability and scalability of the application.

HP Inc, Burnaby, BC

September 2021 - August 2022

Associate Software Developer

- Developed and maintained **Terraform**, **Bash**, **PowerShell**, and **Python** <u>cloud deployment scripts</u> to automate the process for customers to build the HP Anyware product (**SaaS**) environment on **AWS** and **GCP**.
- Integrated cloud logging and monitoring services to improve efficiency for troubleshooting and scaling on AWS and GCP, reducing log access time by 50%.
- Participated in the full SDLC of open-source projects, improving secure remote access and streamlined workflows on AWS and GCP, reducing operational overhead by 30%.
- Created robust interfaces for internal tools, enhancing developer efficiency through automation and CI/CD pipelines.
- Worked on incident management and troubleshooting for **Kubernetes** deployments, reducing downtime through effective issue resolution and enhancing system observability.

Intellyon Inc, Burnaby, BC

May 2021 - August 2021

Junior Backend Developer & Systems Engineer

- Designed and maintained backend systems using Python and AWS, focusing on REST API design and implementation to facilitate seamless data integration across services.
- Secured backend systems with customized **AWS Web Application Firewall (WAF)** that successfully rejected over **1,000** injection attempts and DDoS attacks, enhancing overall security and system resilience.
- Utilized **AWS Auto Scaling** and **Elastic Load Balancer** (**ELB**) to enhance application performance, reliability, and scalability, increasing backend capacity by **100**% and enabling automatic scaling to handle fluctuating traffic.
- Enhanced user experiences by integrating Python OpenCV for video processing and timeline generation.
- Developed an admin portal using **Django** with durable, composable data models to manage user accounts and content.
- Implemented and maintained user notification system with Python and AWS SES to enhance user engagement
 and retention by delivering personalized email updates, resulting in a 25% increase in user interaction with the
 platform.
- Participated in the design and management of a PostgreSQL database, ensuring reliable data handling for business needs.

Tomley's Market, Victoria, BC

April 2018 - April 2020

Store Manager/Owner

- Responded to customers' inquiries, complaints, and requirements in a timely and professional manner.
- Managed weekly planning, including employee scheduling, delivery schedules, and stock management.
- Hired new employees, provided work safety training, and integrated them into the team.
- Maintained supplier relationships to ensure smooth operations.

Education