Qi Dang

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Cloud Software Engineer

An innovative Cloud Software Engineer with solid experience specializing in designing, building, maintaining, and optimizing cloud-based applications and backend systems across AWS, Microsoft Azure, and GCP. Experienced Full Stack Developer with expertise in software development, cloud engineering, 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. Key contributor to launching large-scale projects like <u>HP Anyware</u> for Windows 365 in partnership with Microsoft, ensuring scalable and reliable performance. Passionate about modern DevOps practices to automate processes, improve system reliability, and deliver seamless user experiences.

Key Skills

Software Development Life Cycle | Cloud Engineering | Automated Solutions | DevOps Practices | Quality Assurance | Testing | Project Management | Process Improvement | Troubleshooting | Problem Solving

Technologies and Languages

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

Work Experiences

HP Inc, Vancouver, BC

January 2023 - October 2024

Cloud Software Engineer

- Key contributor to the launch of <u>HP Anyware for Windows 365</u>, a joint HP/Microsoft project.
 Collaborated with cross-functional teams to gather requirements and build solutions. Developed web applications using Node.js and React, deployed with Azure App Services to deliver intelligent orchestrations, ensuring scalability and seamless user experiences.
- Optimized system algorithms, improving processing efficiency by **30-70%**, reducing redundant operations and enhancing overall system performance.
- Designed a logging and monitoring solution with Azure Monitor, collected and filtered logs to display critical issues on a dashboard, reducing debugging time by 30%.

- 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.
- Developed and managed APIs for internal tools and services, enhancing functionality and supporting cloud-based products.
- Ensured infrastructure reliability through debugging production issues and improving engineering standards, tooling, and processes.

HP Teradici, Burnaby, BC

September 2021 – August 2022

Associate Software Developer Co-op

- 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, including integrating AWS Session Manager and GCP IAP, from designing, implementing, to deploying, which improved secure remote access and streamlined developer workflows, reducing operational overhead by 20%.
- Built durable interfaces for internal tools, streamlining developer productivity through automation and CI/CD pipelines.

Intellyon Inc, Burnaby, BC

May 2021 - August 2021

Junior Backend Developer & Systems Engineer Co-op

- Designed and maintained backend systems using Python and AWS, securing the system with a custom 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.
- 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