## 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 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. Key contributor to launching large-scale projects like HP Anyware for Windows 365 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 | Automated Solutions | DevOps | Agile | Project Management | Process Improvement | Troubleshooting | Problem Solving

#### **Technologies and Languages**

- Programming Languages: Python, JavaScript, Bash, PowerShell, SQL
- Cloud Computing:
  - o AWS: VPC, EC2, S3, CloudWatch, SES, WAF, ELB, Lambda, EKS
  - Microsoft Azure: Virtual Network, Virtual Machine, App Service, App Gateway, Storage account, Key Vault, Azure Monitor, AKS
  - o GCP: 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
- Testing & Best Practices:
  - Techniques: Unit Testing, Integration Testing, Test-Driven Development (TDD), Load Testing
  - o Tools: unittest, pytest, JTest, Jest

## **Work Experiences**

HP Inc, Vancouver, BC
Cloud Software Engineer

January 2023 – Present

- 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 web applications using **Node.js** and **React**, leveraging **Docker** and **Azure** services to create elegant user experiences and intelligent orchestrations.
- 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%**.
- Integrated with the 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.
- Performed troubleshooting for **Kubernetes** deployments, optimizing cluster performance and resolving issues to maintain service availability.
- Contributed to the architecture, design, and testing of various system components, ensuring reliability and scalability of the application.

#### 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

Diploma, Computer Information Technology, With Distinction

2022