

HIEU HUYNH

devops engineer

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EXPERIENCE

• NFQ Asia — 8Bit Rockstars

accelerate startups and scale enterprises as DevOps Engineer

August 2017 - Now

◦ General & Process

- * Cover A-Z from kicking off: AWS/GCP stack, build infra from scratch to micro services, trace problems & scale.
- * Taking strong responsibility/ownership during on-call periods, identifying failures and execute actions for resolving live issues: postmortem, prevention plan, achieve goals on basic SLA, uptime & MTTR.
- * Producing DEVOPS evaluation standards: 4 levels, 17 technical topics and 70-mindset/30-tech ratio.

◦ VM-based infra

- * Designing modular, pluggable & standardized IaC with bottom-up approach: network, env, app, services, tools.
- * Working, contributing & guiding standards on 20 terraform modules with 30 ansible roles.
- * Solid skills on GNU/Linux: top, vmstat, sysstat, iotop, dmesg, logger, mount/fstab, systemd, cron, supervisord, strace, time, tuning linux.
- * Building & deep operating MySQL/MongoDB internals, replication, sharding, multi-AZ, HA failover, backup/restore on VM-based, RDS, CloudSQL, MongoDB Atlas with VPC peering.
- * Designing network: Route53, VPC, NAT, Cloudflare, ALB, NLB, Nginx, HAproxy, OpenVPN, Wireguard VPN, Cloudfront CDN.
- * Building monitoring/logging/APM: Sentry, ELK, Telegraf, Influxdb, Grafana, NewRelic, Monit, Cloudwatch.

◦ Container-based infra

- * Dockerize vm-based webapps, building Dockerfile, docker-compose, microK8s, podman for local & testing.
- * Handling micro-services by using Kubernetes on GCP, evolved from DEIS architecture to GKE with pure YAML.
- * Operating multiple GKE clusters across regions (EU & ASIA)
- * Building main routing application traffic by using nginx-ingress on both name-based & path-based
- * Config Cloud Nat gateway on GKE for limiting outbound IP
- * Scaling up/down services during high traffic 50K rpm
- * Streaming logs from stdout/syslog-protocol to Logentries & ELK
- * Deploying & patching GKE deployment using jenkins, GCR with fully automation Gitflow

◦ Web application

- * Proposing HA & scalable scheduler/one-off architecture by using internal HTTP endpoint.
- * Designing database migration process for multi tenancy DBs using pub/sub queue worker.
- * Handling perf bottle-neck: Redis caching, MySQL/MongoDB index & perf schema, tuning PHP/NodeJS.
- * Producing Gitflow with CI/CD on multi clouds: Jenkins, Ansistrano, pipeline, parallel, webhook, cron, notification.

• Codebox Solutions

work as DevOps Engineer for SalesHood - San Francisco

August 2016 - June 2017

- **Maintain:** troubleshoot CI/CD infrastructure issues, multi env on AWS, handle SPOF execution processes. Manage deployment workflows on Jenkins, writing bash, python scripts and aws cli, s3.
- **Investigating:** performance problems, OOM issue. Estimating and choosing the right instance/server and applicable use cases based on benchmarking. Experience with locust.io, gatling.io for performing scenario loadtest. Handle webapp centralized log & data pipeline: Rsyslog, Logstash, Elasticsearch, Kibana.
- **MySQL master-slave:** Deep understanding in replication, identify and cure slave lag, binlog, slow query logs.
- **Penetration testing:** run security audit and fixing vulnerabilities to pass OWASP. Basic knowledge about ZAP, Burp and Metasploit for discovering vulnerabilities, pass security audit from Salesforce.

PROJECTS

- **supermicro-logsystem** Based on rsyslog that can adapt for any linux log files (system logs, application logs, ...)
- **blog.tracelog.in** a blog about linux, database, infrastructure, and mindset.

EDUCATION

• University of Technology - Bach Khoa HCM

Bachelor of Engineering in Computer Science

August 2012 - April 2017

- Graduated with good grade and excellent thesis 9.5/10
- Working as a leader in most teams at university, having fluent presentation skills.