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#### > PROFICIENT TECHNOLOGIES

AWS, Kubernetes, IaC, Databases, Cost Efficiency & Optimizations, IAM, Security & Compliance, SRE

#### > PROFESSIONAL EXPERIENCE

Houzz | Sr. Engineering Manager, Core Infrastructure | Palo Alto, CA

2024 - Present

My mission is to build and evolve a secure, scalable, and cost-effective Cloud and Data infrastructure that supports Houzz products and analytics at scale. I focus on driving reliability, efficiency, and developer empowerment across AWS, Kubernetes, and our Data platforms. I lead 2 teams of 9 Core and Data Infrastructure Engineers, setting clear goals and providing strategic guidance to align our work with company-wide priorities.

- Led a company-wide migration of Houzz products from self-managed Kubernetes (Kops) to AWS EKS, introducing infrastructure-as-code with Terraform and ArgoCD, and adopting Karpenter and Istio for autoscaling and service mesh improvements.
- Enhanced the reliability of key data platforms including Trino, Redash, Airflow, and EMR, and strengthened the event processing pipeline by optimizing Filebeat, Kafka, and Flink—resulting in more robust ETL workflows and improved data quality.
- Implemented rate limiting and tarpitting at the CDN layer using client fingerprints—including IP, JA3, JA4, and ASN to mitigate DDoS attacks and aggressive crawlers, improving site availability and uptime.

# Sr. Engineering Manager, Core Infrastructure | Palo Alto, CA

2020 - 2024

- Led cross-functional collaboration efforts such as DB migration from Self-hosted MySQL clusters to AWS RDS, working closely with development, operations, and QA teams to ensure seamless delivery of mission-critical projects.
- Cost optimizations in AWS to <u>reduce annual cost by 20%</u> with efforts in >90% RI utilization, resizing instance types, K8s Cluster Autoscaling with Karpenter, spot instance utilization, EBS GP3 conversion, Graviton adoption, S3 lifecycle policy reinforcement, etc, while <u>maintaining >99.9% site uptime</u>.
- Drove continuous improvement initiatives to enhance our cloud infrastructure's efficiency, such as managing our infrastructures with Terraform, delivering Kubernetes deployments through ArgoCD, and managing configuration management of our compute workloads via Ansible/AWX.
- Improved Security and Compliance with efforts in Ubuntu22/IMDSv2 upgrades, instrumented AWS services (GuardDuty/Inspector/SecurityHub/IAM) and Golden Image pipeline with CVE remediation.
- Provided AI frameworks such as Kubeflow and Milvus DB to improve scalability and search efficiency.
- Cultivated robust partnerships with 3rd-party vendors such as AWS, Fastly, HashiCorp, nOps, Coralogix, Appgate and Kubecost by conducting regular meetings to ensure alignment and optimize collaboration.

### Houzz | Sr. Software Engineer, Productivity/Core Infra | Palo Alto, CA

2016 - 2020

- Migrated monitoring system from OpenTSDB to Prometheus/Thanos stacks on Kubernetes clusters.
- Implemented Spam Detection and Mitigation pipeline for Houzz users, professionals and images, and identified 100k spam incidents annually with minimum false positives.
- Instrumented Distributed Tracing System: created Java, PHP and JS Zipkin clients and instrumented them for microservices monitoring. Integrated usage results with Regression detection pipelines.

2011 - 2016

Telecom Technologies Services Inc./T-Mobile | RF Engineer | Washington, DC

2010 - 2011

### > EDUCATION

Master of Science Engineering, University of Pennsylvania Bachelor of Science Engineering, National Chiao Tung University 2010 2006

## > LEADERSHIP, VOLUNTEERING, CERTIFICATES, AND AWARDS

Superhero Alumni Ambassador, University of Pennsylvania

2019 - Present

Certificate for Running Containers on AWS EKS,  $AWS\ Training\ |\ \underline{link}$ 

2023

Certificate for AWS Cloud Architect, Udacity Nanodegree | link

2021

Winner of SP Creativity Contest - Barrier-Overpassing Carrier, National Chiao Tung University | patent

2007