Emily Hoang

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Overview

I'm a software engineer who takes pride in building systems that are not only scalable and reliable, but genuinely make life easier for the people who use and maintain them. Over the past six years, I've had the opportunities to lead complex initiatives like performance testing across 13+ services, introducing canary releases with zero customer impact, and strengthening observability and resilience across multiple platforms.

I enjoy connecting the dots between infrastructure, code, and people. Whether setting up AWS and Kubernetes foundations, refining CI/CD pipelines, or championing infrastructure as code, I

focus on clarity, collaboration, and craftsmanship. I've found that technical excellence comes not just from writing good code, but from fostering an environment where others can thrive — through mentorship, shared learning, and thoughtful communication.

I'm now looking to contribute to a growth-oriented engineering team that values reliability, innovation, and collective success as much as I do.

Highlights

- **End-to-end ownership:** Trusted to lead complex service deliveries from concept to production, with a strong focus on quality, reliability, and timely outcomes.
- **Technical depth:** Experienced across performance testing, resilience, observability, and CI/CD automation—driving scalable, maintainable, and high-performing systems.
- **Collaborative mindset:** Skilled at working across platform, product, and infrastructure teams to align goals, solve problems, and deliver shared success.
- **Leadership and growth:** Passionate about mentoring engineers, sharing knowledge, and fostering a culture of learning and continuous improvement.
- **Engineering excellence:** Committed to building systems that are dependable, well-crafted, and empower teams to deliver with confidence.

Work History

Major Australian Accounting Software

Senior Software Engineer

October 2023 – Present | Melbourne, Australia

- Led Performance Testing across 13+ critical services—ensuring all service owner requirements were clearly documented, tested, and validated.
- Collaborated with multiple platforms and product teams to overcome technical constraints, secure resources, and execute performance tests in a shared environment.
- Designed and implemented an isolated performance testing setup for a critical service:
    - Provisioned Deployment IAM Role strategy and standalone Kubernetes deployments with GitHub Actions pipelines.
    - Enabled independent performance testing without disrupting shared environments—pioneering continuous performance validation.

- Structured stakeholder alignment using Miro boards to clearly communicate test scope, dependencies, architecture, and resources needed for a successful performance test.
- Proactively resolved technical challenges such as the Identity service integrations and rate-limiting issues at the network layer.
- Mentored engineers on automating large-scale test data creation, setting up pipelines, and coordinating performance tests across teams.
- Documented test results, blockers, and recommendations in a clear and actionable format for service owners.

Feature Leadership & Service Foundations

- Feature-led the implementation of Canary Releases using Argo Rollouts across multiple services:
  - Delivered deployments with zero customer impact.
  - Conducted knowledge-sharing sessions to scale adoption across teams.
  - Co-authored clear documentation for migrating canary release strategies from legacy C&M setups to Argo Rollouts.
- Conducted Resilience Assessments for key services, producing actionable recommendations that built stakeholder trust.
- Established core service infrastructure for the a critical product:

- ○ Set up CI/CD pipelines and foundational environments for seamless future development.
- ○ Implemented observability per Path to Production standards, including New Relic alerts on golden signals and dashboards for user flow metrics, alongside SLOs.
- Provisioned test environment for new service under restrictions, unblocking development during critical delivery phases.

Innovation & Growth

- Advocated for AI-driven productivity, conducting sessions on leveraging MCP servers for:
  - ○ PR generation, Jira querying, test data automation, and effective prompt writing.
  - ○ Promoting affective AI prompt and context engineering, such as utilising the share-ai-prompts GitHub repository, fosters team-wide adoption.
- Facilitated cross-team knowledge sharing through structured Miro boards and internal sessions on:
  - ○ Observability, Resiliency, Performance Testing, Identity integration, Canary Release with Argo Rollout, and setting up API/BFF service foundation.
- Sharing the Performance Testing template and test data creation pipeline set up at Communities of Practice (Performance, Quality, Engineering) to uplift team capabilities.

Key Achievements

- Delivered 13+ service performance tests with completion and actionable insights.
- Setting up an isolated performance testing environment, enabling scalable and continuous validation.
- Rolled out Argo Rollouts canary deployments for multiple services without interruptions.
- Recognised by stakeholders for clarity, documentation quality, and reliability under pressure.
- Empowered engineers through mentorship, templates, and reproducible frameworks for testing and delivery.

Tech Stack: C#, TypeScript, JavaScript, Terraform, AWS, Kubernetes, GitHub Actions, Team City, Argo Rollouts, New Relic, k6, Grafana

Major Australian Banking Company

July - September 2023 | Melbourne, Australia

- Modernised a critical service by replacing the outdated tech stack with an endorsed framework, establishing the new service and CI/CD pipeline, and documenting processes for team-wide adoption.

- Built a streamlined cloud deployment pipeline automating build, testing, security scanning, and deployment processes, reducing manual intervention and errors.
- Designed and implemented a high-availability platform, decoupling external service failures, improving fault tolerance, and enhancing system reliability.
- Developed backend endpoints and enabled frontend integration aligned with high-availability design.
- Key Achievements: Delivered scalable, maintainable services; implemented robust CI/CD pipelines; fostered knowledge sharing; improved system uptime and reliability.

  Tech Stack: AWS (Kafka, IAM, Redis), Terraform, TypeScript, Ruby, GitHub Actions

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Major Australian Airline Company

Feb - May 2023 | Melbourne, Australia

- Led observability initiatives, implementing real-time monitoring of key metrics (response times, error rates, latency, saturation) and distributed tracing to identify performance bottlenecks.
- Designed and deployed Service Level Objectives (SLOs), aligning teams on service reliability and performance goals.

- Implemented observability as code, centralising configurations, dashboards, and deployment scripts for consistent adoption.
- Integrated services with Datadog APM, enabling actionable dashboards and proactive alerting to minimise downtime.
- Co-authored Observability guideline, which was adopted by over 100 services for setting up automated alerts based on Golden Signals and SLOs
  Tech Stack: AWS (S3, IAM, DynamoDB), Terraform, Java, TypeScript, Kotlin, Datadog

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Major Australian Retail Company

August 2021 - Feb 2022 | Melbourne, Australia

- Developed the core subscription platform, handling multiple subscription options and payment processing in a microservices, event-driven architecture.
- Migrated existing customers to the new platform while ensuring service reliability.
- Implemented CI/CD pipelines, TDD, trunk-based development, and automated monitoring for continuous delivery.
- Actively promoted team growth through Brown Bag sessions, pair programming, and knowledge sharing.
  Tech Stack: AWS, Kafka & Avro, Spring Boot with Kotlin,

Golang, GraphQL, React, Terraform, Stripe/PayPal/Braintree, Auth0, k6

Major Australian Software Company

November 2020 - July 2021 | Melbourne, Australia

- Led datacenter-to-cloud migration of critical services, including a corporate PaaS platform.
- Migrated authentication service databases from RDS to DynamoDB across multiple regions, handling 6B records with 5k–7k RPS.
- Coordinated distributed teams across Australia and India, ensuring seamless deployment and integration.
  Tech Stack: AWS (CloudFormation, EC2, SQS, VPC, SNS, DynamoDB, RDS), Ansible, Python, Node.js (TypeScript), Bamboo, BitBucket

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The Global Bahmni Project

Feb - March 2020 | Melbourne, Australia

- Enhanced and expanded the EMR hospital system for COVID-19 response, supporting testing, patient management, secure data sharing, and telehealth capabilities.

- Contributed to building a scalable digital health infrastructure for low-resource settings.
  Tech Stack: .Net Core, C#, Docker, Postgres, SQL

Major Australian Accounting Software

November 2019 - June 2020 | Melbourne, Australia

- Built a customer communications platform, covering backend development, cloud infrastructure, DevOps, and security.
- Facilitated onboarding, milestone reporting, and cross-team collaboration.
- Implemented monitoring and observability to ensure proactive issue detection and resolution.
  Tech Stack: AWS (DynamoDB, S3, SNS, SQS, Glue, Kinesis, CloudWatch), Terraform, New Relic, Sumo Logic, .Net Core, Kubernetes, Docker, TeamCity

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ThoughtWorks University

October - November 2019 | Pune, India

- Enhanced e-commerce application capabilities, implementing new features, fixing defects, and improving security and performance.
- Facilitated Agile ceremonies and contributed to a positive team culture through knowledge sharing and team-building activities.
  Tech Stack: Java, Spring, JUnit, Mockito, Selenium, React, SQL, GoCD

Peer Endorsements

- *"Emily consistently demonstrated ownership and leadership in performance testing across multiple services, keeping all stakeholders aligned and delivering high-quality outcomes."* – **Haritha, Delivery Lead**
- *"Emily has shown strong leadership in driving complex performance testing efforts, handling high-level coordination, investigation, and analysis exceptionally well."* – **Sola, Senior Software Engineer**
- *"Emily's work migrating to canary releases using Argo Rollouts and setting up New Relic alerts & dashboards has been outstanding, and she consistently shares her knowledge with the team."* – **Rekha, Software Engineer**

- *"She anchored performance testing for multiple services from beginning to end, delivering value that both the team and clients clearly appreciated."* – **Acer, Tech Lead**
- *"Her Miro boards and Confluence documentation made complex processes easy to understand, keeping stakeholders aligned and ensuring a lasting legacy of work."* – **Loosh, Senior Software Engineer**
- *"Emily is a stable anchor for performance testing work, solving complex technical challenges while mentoring others and scaling team capabilities."* – **Outdam, Senior Software Engineer**
- *"Her calm, problem-solving mindset and clear communication helped keep multi-team initiatives on track, even with dependencies on Identity service integration and rate limiting challenges."* – **Afraz, Senior Software Engineer**