



Kai Hendry, Curriculum vitae

Kai is an Infrastructure Engineer with more than 25 years of experience, delivering performant Web applications on the Cloud. Keen on developing workflows with AI and evaluating the latest large language models (LLMs) and techniques for increased efficiency.

Thoughtworks

Since 2020 I've been working as a Lead Infrastructure consultant at Thoughtworks, a global premier software consultancy specialising in Design, Engineering & AI.

Data Science Platform at Airline

Feb 2025 - Present | London

- Delivering Data Science Platform capabilities on AWS
- Improving developer productivity

Tech Stack: AWS, Python, Airflow, dbt, Snowflake

Leading Learning Management System (LMS)

July 2024 - Feb 2025 | Italy

- Founding member of the Principal team which conducted an assessment and defined the strategy for modernising the platform
- Lead initial stability task force to deliver fixes featuring a custom built Rate limiter and Circuit breaker to control multi-tenanted traffic
- Created processes to identify bad queries across a large database landscape

Tech Stack: AWS, Go, Datadog, MySQL, Nginx (Lua), PHP, Gitlab

Leading Electronics retailer

April 2024 - June 2024 | Italy

- Modernised Customer Data Platform (Loyalty system) upon GCP
- Built team & delivered infrastructure target for migration

Tech Stack: Google Cloud Platform (GCP), Identity Platform, Terraform, Python, Bigquery

Leading Insurance company

September 2023 - Feb 2024 | UK

- Lead engineer on an API strategy initiative, integrating a unified API across diverse products and brands, enhancing system interoperability and user convenience
- Engineered a GraphQL implementation on AWS with Lambda resolvers and local stubs, fortified by robust security measures and comprehensive observability, to cultivate an optimized developer experience
- Collaborated in the development of a CI/CD pipeline using GitHub Actions, enabling efficient and reliable value delivery across environments

Tech Stack: AWS, Typescript, Appsync, Cognito, Docker, Kubernetes, Terraform

Government Agency

January 2023 - May 2023 | Singapore

- Led the initiative to adopt the managed Gitlab platform to deliver software in a complex on-premise & Cloud environment
- Established the “Path to Production”, adopted by at least two teams and complying to strict controls and practices such as Separation of Duties
- Drove adoption of “shift left” security dependency scans & SAST scanning

Tech Stack: AWS, Go, Gitlab, Docker, Terraform

Indonesian Digibank

May 2022 - December 2022 | Singapore

- Bootstrapped new AWS organization in the new Jakarta region expansion deploying Thought Machine core banking and supporting microservices
- Implemented a continuous delivery pipeline with Gitlab for Path to Production & Continuous Delivery with Approvals

Tech Stack: AWS, Go, Terraform, Gitlab, EKS (Kubernetes), Docker

Government Agency

August 2021 - April 2022 | Singapore

- Tech Lead with the challenge of delivering on an unproven serverless platform with a team of four developers. The team succeeded in the initiative to deliver features with no downtime on a weekly basis on a NodeJS codebase
- The initial code base lacked tests and was difficult to work on and observe. Lead the drive to improve the quality of the stack with structured logging, test tools, unit tests, canaries, metrics and alarms, so we could observe issues with the networked dependencies

Tech Stack: AWS, Javascript, Terraform, Serverless, Observability

Self-driving car company

May 2021 – August 2021 | Singapore

- Collecting, measuring and eventing off large amounts of data across the world was the challenge. As the Infrastructure lead, our team proposed and put into place the necessary pipeline from ingestion to dashboards to drive improvements for the client

Tech Stack: AWS, Prometheus, Grafana, Observability, Docker, Kubernetes

Indonesian Telecommunications company

February 2021 – April 2021 | Singapore

- Assessing a complex on-premises Enterprise architecture to provide high value Infrastructure recommendations for Digital Transformation, without using the Cloud as required
- Recommended improvement areas around Observability, site reliability (SRE) & “time to market” by leveraging best in class OSS solutions, that integrate well with Enterprise needs

Tech Stack: Enterprise, Observability, Docker, Kubernetes

AWS Cloud practice lead, ‘Teamwork/Corexpert’ consultancy

February 2020 - November 2020 | Singapore

- Operational resilience - designing and implementing Cloud based backup and disaster recovery for clients
- Cost optimisation on cloud bills from GCP/AWS to save clients money
- Pre-sales on large complex cloud migrations for Digital transformation

Tech Stack: AWS, GCP, Cloud, Backup, DRP, Docker, Terraform

Senior Engineer in Digital Science Platform in ‘Gojek’

October 2009 – January 2020 | Singapore

- Developed a process to label new instances to produce costing reports via parameterised Jupyter Notebooks
- Instrumented, exported and produced dashboards/alerts in the Jsonnet data templating language for Grafana with Prometheus and Go language

Tech Stack: Machine Learning (AI), Prometheus, Grafana, Go, Docker, Kubernetes

Devops lead at Property Management startup 'Unee-T'

March 2018 - October 2019 | Singapore

- Built a Continuous Integration (CI/CD) pipeline to deploy Docker containers with Travis CI on AWS ECS via Github
- Built serverless microservices with Golang, documented in Postman to smooth over integration points between frontend and backend

Tech Stack: AWS, Go, Docker, Mysql

Senior devops at Video streaming company 'Spuul'

June 2016 - March 2018 | Singapore

- Administrated a complex multi-region fault tolerant and scalable service on AWS infrastructure
- Created internal tools leveraging AWS SDK Golang V2 to roll out of ~150 channels on AWS Elemental media{live,package}
- Wrote the {static site, playlist} generator in Golang to deliver video over the AWS CDN faster and with more rendition features
- Wrote Vue.JS / AWS JS SDK serverless app to ingest video with metadata

Tech Stack: ffmpeg, AWS, Go, HTML, Javascript (JS), Docker

Managing Director of 'Webconverger', the Browser Linux distribution

February 2012 - March 2016 | London/Singapore

- Designed, developed and maintains the leading open source Web kiosk & signage distribution based on our own innovative gitfs technology
- Implemented subscription and one off billing with Stripe and a powerful configuration / device management service for Webconverger deployments

- Consistently patch the system for upto 5000 machines without down time

Tech Stack: Linux, shell, git

Compliance Process Manager at Telecoms Joint venture 'WAC'

July 2010 - February 2012 | London

- Editor of compliance tests for product delivery from Widget Runtime (WRT) vendors to Joint Venture members
- Lead development on security tools: widget signing and validation tools
- Designed test result reporting system for members and vendors to track their compliance progress
- Presented and represented the company at the Mobile World Congress stand

Tech Stack: Web browsers, mobile

Senior developer at Japanese mobile company 'Aplix'

August 2007 - July 2010 | Guildford, Surrey

- Developing and testing the WebVM browser plugin for exposing device APIs securely on mobile devices
- Active in OMTP BONDI, W3C DAP and W3C widgets working groups
- QA for the SDK, an Eclipse based IDE for BONDI widgets and an emulator runtime
- System administrator for our source control, Bug Tracking System (BTS) and services

Tech Stack: Javascript, PHP, Make, C, Shell, Standards processes

Skills

- Cloud Certifications: [AWS Certified Professional](#)
- Programming Languages: Go, Shell, Javascript, Python
- Data stores: S3, DynamoDB, SQL
- Tools: LLM AI, git, Make, Docker, Kubernetes, Terraform, pkl
- Methodologies: Agile / Continuous Integration (DORA)

Education

- Graduated from the University of Helsinki Computer Science Masters program at the Faculty of Science in 2005 with minors in Management, Mathematics, Statistics, German and the Finnish language

Presentations

- <https://www.youtube.com/user/kaihendry>
 - <https://www.engineers.sg/presenter/kaihendry>
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