

# KYLE HANSEN

Software Development and Infrastructure

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## **Technologies**

- Docker, Kubernetes, Helm
- Python, Java, Bash
- Longhorn, Rancher, K3S
- AWS, Azure, GCP, Bare Metal
- gRPC and Protobufs
- Terraform
- CI/CD (Jenkins, CircleCI, other pipelines)
- MySQL, PostgreSQL,
- Liquibase, Flyway
- REST, Dropwizard, Flask, ExpressJS
- C#, .NET

## **Skills**

- 16 years of backend and infrastructure experience
    - Systems Architecture
    - Infrastructure and Dev processes design
    - Microservices design
    - HTTP/RESTful API design
    - Cloud and bare metal ops
  - 5 years of software developer management
    - Project Management
    - Quickly learn domain knowledge of varied industries and market segments
    - Big data analytics and design
    - Agile/Scrum development processes
  - Test Driven Development (unit, integration, and functional)
  - Experience with fast growing, aggressive startups.
  - Experience handling & developing for large corporate clients
  - Excellent research skills, from both traditional and digital sources
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## **Space and Time | Sep 2022 – May 2024**

### **Microservice/Infra Architect**

- Implemented infrastructure creation and product deployment of a large database product to AWS, GCP, and Azure, using Kubernetes, Rancher, Longhorn, and cloud native tools for each cloud, all automated via Terraform.
- Created infrastructure, designed and built CI/CD, and defined best practices for a large collection of Microservices, first with deployment scripts being run by CircleCI, then migrating to Github Actions and Helm.
- Introduced, defined practices, and trained people on gRPC, Rancher, Helm, and Longhorn.
- Moved application storage from Azure AKS persistent volume storage to Longhorn.
- Assisted with design of microservices, including ingress, state management, and service communication.
- Worked with devs to define and enforce proper semantic versioning, testing, Kubernetes health-checks and lifecycles.
- Assisted security team on best practice implementation, reviewed cloud security assessments, and helped plan response plans and upgrades.

## **Consulting Projects | Feb 2021 – July 2022**

### **Technical Consulting**

- Advised several companies on infrastructure, security, and development processes.
- Designed a 20 node bare metal Kubernetes cluster entirely with Single Board Computers, replicating most common cloud services
- Created data pipelines using SegmentIO, Snowflake, and AWS Lambda
- Dockerized several legacy applications for scalability and ease of use
- Built a restful API and integrated with Zapier
- Built out multiple large production environments via Terraform

## **Health Sqyre | Feb 2019 – Feb 2021**

### **VP Engineering**

- Defined processes and direction for the development team at a small, fast growing startup.
- Architected and developed a custom-built medical tech e-commerce platform with insurance-based pricing engine
- Represented the technical team in planning, roadmapping, and requirements discussions
- Made technology decisions based on requirements of the business
- Designed and built out AWS cloud environment
- Designed security policies and authorization platform to serve HIPAA-compliant application

- Hired, trained and mentored developers in all areas of the stack
- Designed and developed a backend order management system for customer service team
- Transitioned product from monolith POC to production ready microservices architecture
- Implemented full CICD with automated testing of all front-end and back-end services
- Designed an automated local full-stack development environment using Docker and Liquibase

## **Hitachi Vantara | Feb 2018 – Feb 2019**

### ***Software Development Manager***

- Technical lead for a 10 person development team located in 5 countries
- Introduced and educated management and developers on modern development practices and tools
- Led the migration of all development resources to AWS via Kubernetes
- Led the development of a cloud-based capacity management analytics tool
- Worked with lead architect to design a big data pipeline of sensor data from source to the UI
- Represented the technical team in planning, roadmapping, and requirements discussions with upper management
- Created infrastructure and procedures to allow a dispersed global team to communicate and operate successfully
- Implemented full CICD and Gitflow including Kubernetes deployments

## **Rachio | Oct 2016 – Feb 2018**

### ***Senior Platform Engineer***

- Worked with a small backend team to develop a high throughput IOT product
- Developed a high performing weather based alerting service
- Implemented an architecture of event driven, highly scalable microservices with gRPC
- Worked with product designers and front end developers to gather requirements
- Implemented full OAuth2 protocol, both consumer and provider sides
- Developed a Rest to gRPC bridge which was released open source
- Implemented a job scheduling system with which orchestrated job on the microservices
- Worked in a fast moving, agile startup with high customer satisfaction and usage

## **AgilData | Nov 2014 – Oct 2016**

### ***Technology Consultant / Product Development***

- Assisted a very large customer team reorganize and reboot a failed project
- Ran several Professional Services projects, including managing employees and contractors, helping architect big data solutions, and managing customer expectations and budgeting
- Contributed to development of a streaming big data analytics platform
- Development of a custom SQL, including language definition, parsing, and execution
- Consulted on all aspects of the development process, both technical and procedural
- Managed the relationship with a large client's development team
- Led the conceptualization of several new product and services ideas, including setting up MVP sites, researching competition and potential opportunities, and demo materials

## **Intellireal(Equifax) | Jun 2013 – Nov 2014**

### ***Senior Platform Engineer***

- Assisted with the development and delivery of financial models predicting home values from large amounts of variant data
- Worked with Product Management to POC several new concepts
- Enhanced the geographic resolution of the real estate valuation models
- Worked with and enhanced an ETL process, transforming and normalizing data from many different sources into a large Oracle database

## **FullContact | Aug 2010 – April 2013**

### ***Senior Platform Engineer***

- Senior developer and original employee for a cloud based VC funded Techstars company
- Developed and maintained a RESTful API which handles > 10m hits per day
- Developed a large, highly concurrent Storm cluster which synchronized contacts with 3rd party systems.
- Developed a concurrent framework which hit a large collection of 3rd party systems searching for social contact data, handled 120 searches/second.
- Worked with numerous APIs from social media, CRM systems, as well as Chargify, 3Scale, and Sendgrid
- Heavy test driven development, maintained 85% methods, and 60% conditionals under unit test
- Developed using Git, Liquibase, Spring Security, and numerous Java libraries
- Assisted in developing a CICD process using Jenkins and AWS

## **Dimension Technology Solutions | April 2008 – Jan 2010**

### ***Senior Developer / Consultant***

- Worked on development team to produce work order management, scheduling, and requisitioning systems for several large clients including BNSF railway, AngloGold, Patriot Coal, and Hawaiian Electric
- Worked extensively with interfaces between local database and large ERPs including SAP, Mincom Ellipse, and others as well as web-services either written by us or the client
- Developed versatile KPI reporting tools in C# which required knowledge of business rules

## **Active Website | April 2007 – April 2008**

### ***Developer***

- Maintained and developed Waste Management's industrial sales/information ASP site
- Upgraded and maintained a PHP corporate backend which allowed tracking, reporting and management of waste profiles, both generated by the site and elsewhere
- Maintained a client MYSQL database which contained client sensitive data

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## **EDUCATION**

Bachelor of Arts in History from New Mexico State University, 2005