

Keshav Bantwal

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Experience

Software Engineer - 2	Orange Health Labs – Bengaluru, India	April 2023 - Present
<ul style="list-style-type: none">Built and blitz scaled a fleet management system, replacing TPA app giving us full control on ground operations. Designed and developed a React Native App and Backend from scratch, adding real-time tracking, geofencing, event driven alerts and websockets. Worked closely with ground team for weeks to refine the app experience based on real feedback, resulting in usage by 1500+ happy daily active usersResearched and implemented SAGA microservice pattern to orchestrate complex business logic and long running transactions across distributed services, enabling workflow driven development reducing effort and complexityCreating an in-house routing service based on solving Capacitated Vehicle Routing Problem with Time Windows utilizing a self hosted OSRM map infrastructure, to power task / order assignments allowing us finer control over operationsDeveloped APIs and event driven system (pubsub), webhooks to automate orders for 54+ external partners, earlier requiring human intervention, today automates and generates close to ₹1.8 Cr / month in revenueExecuted an address ranking algorithm flagging for inaccurate address inputs based on geo-metadata reducing free text and consumer input errors by about 23%Created and automated industry first APIs and a medically accurate rule engine to enable multiple task scheduling and collection, completely reducing human intervention in order fulfillment funnelDockerized and Launched 4+ services and apps from scratch using AWS Stack (EKS, ECR, RDS, SQS, Route53, Aurora, ElastiCache, EC2, Lambda Serverless, S3) while also enabling continuous distributed tracing and APM monitoringBuilt SKU / barcode scanning, rider activity tracking, detection and ban of location and activity mockers increasing realized service on-time from 63% to over 99.95%Developed a scalable multi shift rostering system improving supply distribution, increasing ground team utilization and efficiency from high 60% to above 88%Mentored 2 engineering interns for various architectural decisions, task planning and managed their deliverablesImplemented industry first end to end sample tracking and reverse logistics system, reducing delays by 20% also aiding in NABL certificationImplemented scalable data archival using parquet file system, with sharding, partitioning and multi zone replication. Optimized performances with data type specific indexes across tables (BRIN, Btree, GIN, n-gram, PostGIS)Regularly handled and resolved P0, P1 incidents with an average 20 mins to recovery ensuring high availability		

Software Engineer - 1	Orange Health Labs – Bengaluru, India	May 2022 - April 2023
<ul style="list-style-type: none">Implemented an end-to-end call masking system ensuring customer and fleet privacy while enabling call traceability and auditsDeveloped APIs and dashboards for tracking attendance and ground activity compliance enhancing operational efficiency and visibility utilizing OAuth and JWTs for securityAuthored custom react native codepush servers streamlining patches and business logic updatesTransitioned the core web app from Wix to WordPress, improving SEO, database performance, and optimizing content delivery through cloudflare CDN integrationBuilt a full stack internal tool focused on onboarding and managing riders, serviceable zones, drops, dispatch personnels and task management, currently is a core system for all logistics operationsLed logistics TPA integrations using an adapter pattern focused on scaling the logistics engine allowing us to auto assign >75% ordersImplemented a fully automated coupon generation and customer rewards rule engine from scratch generating 25.68M coupons with 6.2% utilization till date also enabling integrations with vendors such as google pay, phone pe, etc. for large scale coupon scratch card distribution		

Skills, Technologies

Languages: Golang / Go, Python, Javascript / Typescript, SQL

Frameworks: Django REST, FastAPI, Gin, Fiber, Next, NodeJS / Node, Express, React, React Native, Langchain

Databases: Postgres, MySQL, Redis, Clickhouse, Firestore (NoSQL), GraphQL, Elasticsearch (ELK)

Infra / Misc: Git, Firebase, AWS Stack, GCP, Terraform, Kubernetes, Docker, Messaging Queues, CI/CD, Large Language Models, RAG

Education

PES University - (B.Tech) Bachelors of Technology - Mechanical Engineering

April 2018 - May 2022