

Vishwak Thatikonda

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Summary

Large-scale systems architect and full-stack engineer with 12+ years of experience designing and delivering enterprise platforms across retail, fintech, mobility, geospatial SaaS, and enterprise IoT. Expertise spanning master data platforms, event-driven serverless architecture on AWS, payments infrastructure, and omnichannel contact center systems. Extensive experience in collaborating with different disciplines to drive technical or product direction along with leading teams of several engineers to deliver high-impact projects. Experience owning, architecting, building and maintaining large pieces of product and infrastructure.

Education

Master in Computer Science, Arizona State University, USA

Aug 2016 – May 2018

Bachelors in Computer Science, Amrita University, India

Jul 2011 – May 2015

Software Skills

Programming Languages: Python, Javascript (Node.js, React, React Native), Typescript, SQL

Databases: MongoDB, CouchDB, MySQL, PostgreSQL

Applications / Tools: Git, PyCharm, Matlab, Visual Studio, Eclipse, Jira, Swagger

Technologies / Frameworks: Docker, Express.js, Flask, Amazon Web Services (AWS)

Professional Experience

Full-Stack Developer and Systems Architect, SDH Systems, USA

May 2023– Present

- Architect and full-stack lead across enterprise engagement(s) spanning retail master data, omnichannel contact center platforms, retail payments infrastructure, and financial services. Client name(s) withheld under confidentiality agreements.
- **Enterprise master data:** Architected and delivered core domains of a master data platform serving thousands of retail locations, including the assortment model, dynamic store attributes, and the sellable item metadata layer that downstream ordering, pricing, and personalization systems consume as their source of truth.
- **Data integrity at scale:** Designed cascade delete and smart cascade delete controls alongside exception and override error states, closing off a class of silent corruption across dependent product hierarchies and giving data stewards a safe path to resolve conflicts without escalating to engineering.
- **Operator tooling:** Built Copy Assortment, collapsing per store, per item configuration into a single repeatable operation for merchandising teams managing catalogs across thousands of locations.
- **Contact center modernization:** Contributing to an omnichannel cloud contact center platform on **Amazon Connect** handling roughly 10 million calls per year across globally distributed centers, replatforming legacy ITSM based call flows into serverless, ML assisted routing and agent experiences.
- **Platform engineering:** Own significant portions of a **React** and **Redux** single page agent application backed by **Node.js** and **TypeScript**, and **GraphQL** services on **API Gateway, Lambda, DynamoDB, S3, CloudFront, and CloudWatch**, with a strong bias toward extensible, well tested code.
- **Cross-team delivery:** Coordinate delivery across client engineering teams and vendor partners, translating merchandising and operations requirements into service boundaries and integration contracts.
- **Technical leadership:** Run architecture reviews and technical interview loops for client engineering teams.
- **Retail payments infrastructure:** Engaged on payments platform work at Fortune 1 retail scale, with millions of transactions per day.

Lead Full Stack Developer, Kyte, USA

Oct 2022– Apr 2023

- Introduced Content Management System (CMS) through Strapi that led to deploying new 2 new SEO pages everyday vs requiring developer effort and time for creation of new pages. Deployment of new SEO focused pages **increased footfall to the website by 12% and bookings by 3%**.
- Single handedly led migration of the company website from drivekyte.com to kyte.com which led to **increase in organic traffic by 13x** overnight and consequent reduction of marketing spend.
- Developed and deployed 'Guest Checkout' experience that led to **33% increase in monthly bookings**.
- Architected template for Online Travel Agencies (OTA) integration and developed workflows for quicker integration of Kyte platform with more OTAs like Kayak, Expedia, Priceline etc. **Time to integrate was brought down to 2 weeks from 3 months (85% reduction in developer effort)**.
- Heading the growth efforts at Kyte by introducing ability to seamlessly conduct multiple A/B tests to collect customer metrics for new and upcoming features.

Senior Full-Stack Developer, Credit Sesame, USA

Sep 2021– Oct 2022

- Heading the technical direction for the banking team where I am in charge of drawing up architecture diagrams for any new features that need to be developed or any existing feature that needs to be extended.
- Spearheading the UI revamp while collaborating with product teams to enhance user experience and content delivery on mobile and web apps.
- Leading the white labeling effort of the credit building platform to multiple financial organizations with PCI compliance.
- Instituted development efforts for including customer rent payment information towards their credit utilization and credit score as well as working with multiple credit organizations in the US.
- Researching the viability of new credit building features to be built onto the platform with product managers across different teams.

- Provide technical leadership and use engineering best practices to initiate, plan and execute banking projects which include cross-functional and cross-organizational resources.

Full-Stack Developer, Airworks Solutions, Inc., USA

Apr 2019– Sep 2021

- As the first developer on the Web application team, I owned the task of **designing, architecting, developing** and **maintaining** the code and infrastructure & also constantly work on improving the documentation.
- Architected and developed the Airworks webapp from scratch using the **Mongo Express React Node (MERN)** stack.
- Designed and maintained the scalable **AWS** architecture using **EC2, S3, Lambdas, Cloudformation, Cloudwatch, SQS, SNS, SES** services.
- Integrated **Stripe** APIs with the Airworks platform to manage payments, subscriptions & billing.
- Developed storage, retrieval and display of map entities using **PostgreSQL** and **Mapbox** APIs.
- Designed and developed error reporting pipelines at Airworks using Slack Bots which helped in quicker error resolution and also cutting down the response time to failures in the Image processing pipeline. This also helped address multiple issues from different services on a single platform.
- Shaped the culture of the engineering teams by hiring and fostering new talent over the years.

Full-Stack Developer, Augmate Corp., USA

Jun 2018– Feb 2019

- Worked on the API driven Wearable Environment Manager (WEM) using **React, Node.js** and **Express js**
- Recommending and implementing necessary improvements to the existing platform and responsible for end to end functionalities requirement gathering, developing and delivering features using Agile methodologies.
- Used **React** to create an interactive dashboard for clients to visualize and track each of the connected devices inside their warehouses.
- Piloted an Asset Tracking application for UPS which was built on the **Hyperledger Fabric**.

Software Developer Intern, Sweetbridge, Inc., USA

Jan 2018– Apr 2018

- Responsible for developing UI components using **React** for the data driven web based applications.
- Worked on developing Proof of Concepts (POCs) for different uses of Blockchain technology in varied business cases
- Modelled business networks for varied business use-cases on the **Blockchain**, ranging from pharma, real estate and supply chain industries.
- Researched the feasibility of integrating the **Hyperledger** and **Ethereum blockchain** to get the best of both the technologies.

Software Developer, School of Earth and Space Exploration, Arizona State University, USA

Aug 2016 – Jan 2018

- Designed and developed the microservices to send and receive scientific data from the Martian rovers for the School of Earth and Space Exploration, ASU.
- Developed the Mastcam-Z science payload software component aboard the **Mars 2020 rover** in conjunction with team at **NASA JPL**.
- Extended the functionality of a GUI solution which will be used to perform scientific operations and transformations on the images sent from the currently deployed rovers on Mars.

Test Automation Engineer, Robert Bosch Engineering, India

Aug 2015 – Jun 2016

- Implemented and maintained a Python and XML-based test automation framework for Bosch's Vehicle Infotainment System. Components of the Infotainment system included entertainment, navigation, telematics and driver assistance.
- Created a near life-like testing platform that generates obstacle models and simulated drive tests.

Research Assistant, Universität Paderborn, Germany

Apr 2015 - Jul 2015

- Worked on my Bachelor thesis project which comprised of integrating the networking test framework known as **Mininet API** with **Docker** containers and subsequently creating the *Dockernet*.
- The *Dockernet* allows on demand creation and disposal of Virtual Network Functions.

Academic Projects

- **BraiNet (2017 – Dec 2017)**: Developed an Android application which can be used to authenticate users based on the brain signals
- **Feature Extraction from Video Databases (Aug 2016 – Dec 2016)**: Worked on **removal of noise points** and **extraction of key features** from video streams and storage where multiple dimensions are present.

Certifications

AWS Certified Solutions Architect Associate

Aug 2020