

Dev Vaghani

Backend and infrastructure engineer · Java, Kubernetes, AWS, Python

Four years on systems where an error costs money the same second it happens.

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INDEPENDENT WORK

Downstox: broker-agnostic markets research platform

downstox.com · 2023 - Present

- Designed, shipped and operate the whole platform solo: live NSE and BSE ingestion through to screeners, valuation and portfolio tooling. No team, no paywall, no shared on-call.
- 40 tools across screening, DCF valuation with Monte Carlo simulation, and cross-broker portfolio analysis over read-only broker connections, plus PRISM, a signals engine scoring geopolitical events for market impact. Market data archived back to 2016.
- Runs on ₹3,500 (about \$37) of infrastructure a month, which constrains every design decision from ingestion to serving.

EXPERIENCE

SDE-2, Upstox (Indian retail stockbroker)

Bangalore · Jul 2022 - Present

RMS · Post Trade · Transactions · Platform

- Sole owner of the Risk Management System at a broker with 2.4 million active clients, and a contributor to the order management service it sits in front of. Every order passes through it.
- Designed the post-trade square-off path against circuit limits, illiquid scrips and a fixed latency budget, where the failure mode is realised loss rather than a stack trace.
- Migrated a Java service using GenAI tooling, including the verification strategy for deciding whether the output was correct.

Earlier engineering internships

- CleverTap (Jan - Jun 2022). Dashboard features and Keycloak auth. Vue.js
- Altair (Aug - Dec 2021). Build and assembly pipeline for HyperWorks. C++, Python, Tcl/Tk
- Fyle (Feb - Jul 2021). 20+ pages shipped, PageSpeed raised site-wide. Webflow

PUBLICATIONS

Bandwidth Efficient Digital Image Watermarking Scheme Using a Concatenation of Three Transforms F. N.

Thakkar, D. Vaghani, P. Vasoya, D. Desai, 2020

An Approach for Representation of Node Using Graph Transformer Networks D. Vaghani

SKILLS

Languages: Java, Python, TypeScript, C++, SQL

Platform & backend: Kubernetes, AWS, Node.js, MongoDB

Frontend: React, Next.js, Vue

EDUCATION

B.E. Information Technology, G H Patel College of Engineering & Technology

2018 - 2022