

# Shubh Ketan Agarwal

BACKEND ENGINEER

☎ +917310818220 | ✉ ska1296@gmail.com | 📱 ska1296 | 🌐 ska1296

## Summary

As a backend engineer, I have built out six engineering systems and five products from scratch, taken them from idea to production within 20-30 days with a team of two to three engineers at a Y Combinator backed startup across fintech, web3, data engineering and AI/MLOps.

I founded Blursday (backed by Accelerating Asia) and as a founder I built 5 different products, 3 of which focused on solving problems in the branding space, and 2 were focused on solving storage and payment delays for freelancers and agencies.

## Experience

### SuperMoney

SDE 3

JAVA, MYSQL, FLOWABLE, GCP, PUB/SUB

Feb. 2025

- I improved the error handling in API calls to lenders.
- I am actively working on user state management in the loans journey so that the users end up in a definitive state, rather than getting stuck in the system.
- I am looking over migration of databases from SQL to NoSQL DB, DB version upgrades, and migration of our elastic search DB.
- I am mentoring a team of 6 engineers to improve the code standard across the board.

### Blursday

Founder (CTO)

ENGINEERING, PRODUCT AND SALES

Jun. 2024 - Feb. 2025

- Raised \$125k funding, and got Accelerating Asia's backing.
- Blursday was focused on building an AI brand consultant: a tool where you could build your brand book, assisted by an AI and then enforce the brand guidelines consistently on all creatives for marketing, i.e. social media posts, ads, etc.
- I learnt about the branding domain to build a product, acquiring customers, and I single handedly built all the engineering for the longest time.

### Walfin Tech Pvt Ltd (YC 21) | Rendernet

Engineering lead

GO, PYTHON, STABLE DIFFUSION, SQL, GPUS, COMFYUI, A1111, FORGE, FOOCUS, AWS, SQS

Jan 2021 - Jun 2024

- As a founding (and senior) engineer, I contributed to product features and translated feature requests into technical implementations on a regular basis.
- I built the first core generation and credit management system.
- I went on to improve the image generation engine to increase its success rate from 70% to 99.7%, and reduced the image sizes by 23%.
- I built the generation queues in Go, a producer-consumer model which was heavily asynchronous to get the maximum outputs from our GPUs. At peak traffic, all GPUs operated at 100% compute consumption continuously to get the most out of each GPU.
- I single-handedly managed a 150 GPU infrastructure, with 43 GPUs on premise, and remaining on the cloud and on top of the day to day responsibilities. We had 100% visibility into what was going on in each GPU.
- I built out the pipelines (in Go) to deploy code and models on 150 machines, and deployments happen on a weekly basis.
- I managed our AWS infrastructure to host the backend VMs, postgres DB, load balancer and SQS.
- I familiarised myself with Stable Diffusion, and different implementations (Foocus, Forge, Automatic1111 and ComfyUI) and open source libraries that could help us deliver new and improved features faster.
- I lead a self driven team of 5 backend engineers and 3 frontend engineers to release major features on a weekly basis.

### Walfin Tech Pvt Ltd (YC 21) | RoverX

Backend engineer

ETHEREUM, ERC-721, DBT, PYTHON, POSTGRES SQL, BIG QUERY, GO, RUST, GCP, SQLITE

Jan 2021 - Jun 2024

- I wrote a feature to track realtime floor prices of roughly 2 lakh NFT collections and trigger alerts when they hit a value specified by the user.
- I optimised the feature that let users calculate their NFT portfolio and cut down the query time from over 20 seconds to 300ms.
- I wrote the first ETL pipelines to ingest Ethereum data from Big query into our Cloud SQL using Python. This gave us a kickstart and helped us get 2TB data into our system within a few hours.
- I wrote the ETL pipelines to ingest Ethereum data into our Cloud SQL using Python and DBT. The pipeline ingested data from ethereum at 10 second intervals.
- I performed end to end design on data schema at every ETL stage.
- I worked actively to formalise those pipelines and bring in orchestration tools.
- I taught myself solidity and ERC standards.
- I deployed NFT contracts to NFT gate the application.
- I studied various implementation of ERC-4337 and built out our backend for enabling transactions as per account abstraction in Rust.

## Walfin Tech Pvt Ltd (YC 21) | Defy

JAVA, TERRAFORM, GCP, REDIS, POSTGRES SQL

Backend engineer

Jan 2021 - Jun 2024

- Designed a new server application from scratch.
- Built libraries to easily integrate exchanges - Vault, Bitbns and payment partners.
- Drove end-to-end integration with multiple exchanges and payment partners.
- Built a socket server to stream live prices to the clients and notify the client about several events.
- Setup the infrastructure on GCP using terraform to host the newly built services.

## Walfin Tech Pvt Ltd (YC 21) | Walrus

JAVA, POSTGRES SQL, NODEJS, GCP

Backend engineer

Jan 2021 - Jun 2024

- Developed web services in JAVA using the Dropwizard framework and used JOOQ for backend integration.
- I built one of our first reward mechanisms: Dracons. It involved collecting cards at every payment made via Walrus card or UPI and exchanging them for cash once the set was complete.
- Migrated the entire legacy payments system from NodeJS to Java.
- Extended the new system by integrating it with M2P and Zeta for payments.
- Actively designed several APIs and schema changes to support new features and to improve the existing ones.
- Improved the P99 latency of multiple APIs by one second.

## TECHNIA

JAVA, ORACLE

Application developer

August 2018 - January 2021

- Worked actively with the data migration team to move data from SQL to enovia's Oracle database, applying the concepts of Extract, Transform, Load (ETL).
- Designed a new Data Migration Tool and exposed it as a service using Java technologies and designed a new web interface to interact with this service
- The new tool gave us a 7x time improvement in data extraction and reduced the load by an average of 10 hrs
- Reduced overall load time by an average of 10 hrs
- Implemented load balancer to be able to use multiple application servers and switch between those servers for optimal performance

## Education

### GLA University

B. TECH IN COMPUTER SCIENCE AND ENGINEERING

Mathura, UP

May 2018

Marks: 6.75%

### Hartman College

INDIAN SCHOOL CERTIFICATE

Bareilly, UP

May 2014

Marks: 78.2%

### Hartman College

INDIAN CERTIFICATE OF SECONDARY EXAMINATION

Bareilly, UP

May 2014

Marks: 80.71%

## Skills

Java • Dropwizard • Stable Diffusion • JavaScript • SQL • Solidity • Python • Go • DBT • NodeJS • GCP • AWS • Sales