Anmol Chawla
Software Engineer

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An experienced software engineer working with a demonstrated history of working with software products. Skilled in working with distributed systems as well as web and mobile technologies. Familiar with modern ML inference pipelines and scaling them for throughput.

Skills

Languages

- Kotlin
- Python
- Dart
- Javascript
- Swift

Frameworks

- Dropwizard
- Flutter
- React
- SwiftUI
- Diffusers

Tools

- Kubernetes
- Docker
- Linux
- CDN
- Git

Experience

Dashtoon

Founding Engineer   March 2023 - Present

- Streamlined content management on platform by migrating from single-region replicated Postgres database to **multi-region geo-replicated Azure Cosmos (No-SQL) database**, creating a single source of truth for content and eliminating consistency problems between multiple databases. Was achieved with **0 downtime** by using **Dual Read Write strategy**, and also resulted in a **40% reduction in latencies**

- Scaled reader service to **service requests globally** by establishing a **multi-region distributed setup**. In the process of which a formal user service was also setup, handling assigning users to a region and **re-routing requests transparently**. Allowed establishing a **point of presence in different regions** and **isolating financial records** to the user's region. The setup involved usage of the **Azure's global load-balancer** and resulted in an **81% reduction in latencies** globally

- Created and managed **7 production Kubernetes clusters** spread across **Azure AKS, Google Cloud GKE and AWS EKS**, granting access to varied GPU nodes and handling traffic across regions.

- Setup and maintained **APM tooling** via **Open Telemetry and Signoz** across **7 Kubernetes clusters**, giving real time insights on latencies and errors. **Reduced mean time to resolve issues by 50%**

- Implemented **Generative AI piplines** using **Diffusers and FastAPI** servers for image generation requirements, powering the core of Dashtoon's image generation capabilities. **Achieved 25 seconds per high resolution image generation time on L4 GPUs**

- **Created an internal advertisement platform** on the app for serving advertisements based on content published on the app. Created a **new presence on the app for show discovery**. Resulted in an **increase in crosswalk by 25%**

- Setup **CI/CD piplines** across the organisation for Kotlin, Python, React and Flutter repositories using **Github Actions**, reducing the time spent on deployments and management of micro-services. Ensured **average build times of 1 minute**

- Conceptualized and **implemented payments micro-service** for handling user transactions and facilitating internal economy. **Simplified accounting of app purchases** by implmenting **transactions, wallet ledger and wallets** for each user. Handled 30 transactions per second.
- **Created a discounting platform** for entities on the app such as the episodes, shows or the app itself. Allowed **quick experimentation of pricing** by the business team. Helped **increase cross-walk on the app by 20%**
- Setup **Role Based Access Control** framework for creation studio, **based on the framework used by Kubernetes**. Allowed for the separation of internal teams based on the shows being produced as well as isolating individual user creations from others.
- Established **pipelines for training and managing of characters** on the platform using **LoRA** for creating consistent characters using a set of photos as input. Overall time spent **training a character was within 8 minutes**

Udaan

Product Engineer II   January 2022 - December 2022

- Created a **platform for tracking last mile deliveries** in **real time** by the operations teams at last mile hub. Allowed the operations teams to **set delivery SLAs** and nudge drivers for timely deliveries. Resulted in a **reduction of 20% in overall delivery time** for the day. Handled over **1K location updates per second**
- **Migrated entire organisation**, with over 200 repositories, from **Jenkins to Github Actions** for **CI/CD pipelines**. Migration was **automated** by using a **Groovy AST parser** to convert Jenkins DSL to YAML. Action runners were setup as **self-hosted runners**. Resulted in the setup becoming easier to modify and more approachable. **Reduced build times by 50%** and had **costs saving of 40%**
- **Managed over 400 Virtual Machines** across **3 Kubernetes clusters** and **7 datacenters** with a mix of Azure and on-premise.
- Setup **Istio proxy** across clusters to **facilitate inter-cluster communication** between services.

Product Engineer I   July 2020 - January 2022

- Facilitated **reduction in organisational infrastructure cost** by implmenting **Horizontal Pod Autoscaler** across production clusters. Teams were asked to reduce resource requests and instances required. Overall effort resulted in a **reduction of 80% of infrastructure costs**
- Established a virtual warehousing concept for facilitating just-in-time deliveries from vendor to the buyer, without requiring item to be inwarded at a physical warehouse. Allowed savings of upto a day in delivery timelines
- **Operationalized internal routing of deliveries** which used **pigeon hole and k-means clustering** for grouping of delivery locations and historical analysis for the route to be taken within a cluster. Automated the burden of manual routing on the last mile hub team and allowed for efficiencies to be made in the delivery routes. **Reduced the process from 2 hours of manual effort to 15 minutes of automated routing**