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ABHISHEK MURTHY

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EDUCATION

Duke University: Master of Engineering in Artificial Intelligence **(2023 - Present)**
Visvesvaraya Technological University: Bachelor of Engineering in Computer Science & Engineering **(2016 - 2020)**

EXPERIENCE

Co-founder | Software Engineer ticketdude **Nov 2022 - Present (Bangalore)**

- Setup **DNS routing tables** for various app environments, mailers, **webhooks, deep links** and more
- Architectured, built and deployed multiple services **(auth, ticketing, payment, notifications)** on DigitalOcean app platform, handled **database scaling, read replicas**, integrated **S3** equivalent object storage solution (spaces)
- Built a **mobile app using Flutter** and a **web client using React** with standardized state management **(Provider & Context)** and code design patterns. Incorporated **Material Design 3** as our UI design language.
- Implemented automated **CI/CD pipelines** for our backend services, web and mobile app releases (fastlane)
- Integrated payment gateway (cashfree), mail & push notifications, worker queues (Celery), CRON jobs and alerts

Technology Used – Python, Django, Pandas, Redis, Celery, MySQL, React, Flutter, Dart, DigitalOcean, fastlane etc

Software Development Engineer 2 **BlinkIt (acquired by Zomato)** **May 2021 - Oct 2022 (Bangalore)**

- Collaborated with product managers, analysts and engineers in Inventory, Warehouse and finance teams to improve in-store operations, inventory availability, logistics, serviceability and more while being an IC.
- Worked on multiple services to enable **10 minute grocery delivery** in India, primarily **ARS (Automatic Replenishment System)** to ensure high availability at warehouses, catering over 300,000 orders per day.
- Improved **reliability, security and performance** of systems of numerous backends, mobile and web apps.
- Worked with **React** and **Typescript** to build dashboards for visualizing reports & editing configurations
- Setup **grafana dashboards** for **monitoring** and integrated **Opsgenie** for **alerting**. Used **Tekton** to deploy **docker** images (**Skaffold** for image versioning & **Harbor** as the store) to AWS **EKS** on two environments

Technology Used – Python, Go, Django, Pandas, Redis, Kafka, Celery, SQL, Docker, Kubernetes, React, Typescript

Software Engineer TVAST **Feb 2020 - May 2021 (Bangalore)**

- Architectured and built the backend for multiple applications. Setup the **CI/CD** pipeline using **GitHub Actions**.
- Deployed services on **AWS EKS** and **EC2**, setup log collection, elastic IPs, caches, DNS records and **CI/CD** processes for three environments.
- Implemented **GraphQL** resolvers, **payment gateways, job queues,** message brokers for **interservice communication,** managed **caches** and **cron jobs** for triggering **push notifications** and more.
- Integrated **DialogFlow** and **Azure Cloud Services** for **speech recognition** and **language internationalisation**.
- Worked extensively with **MongoDB**, created **geospatial indexes** and more for performant **queries**.
- Assembled the frontend using **React** with **Material UI** and **Flutter** for mobile apps.
- Worked with **Postgres, MySQL** and **MongoDB** as databases and **Node, Django, Flask** for servers.

Technology Used – MERN, AWS, Nginx, Redis, RabbitMQ, NestJs, MongoDB, Django, Flutter, MySQL, Docker

TECHNOLOGIES

- **Programming Languages –** Python, Go, Java, JavaScript, Typescript, Dart, Web Dev
- **Libraries/Frameworks –** NodeJs, GraphQL, Kafka, Flutter, Django, React, RabbitMQ, Redis, Airflow, Pandas
- **Database –** MongoDB, PostgreSQL, MySQL, SQLite3, IPFS, Firestore
- **DevOps -** Docker, Kubernetes, Tekton, GitHub Actions, AWS, DigitalOcean, GoDaddy
- **ML –** Numpy, Pandas, scikit-learn, Tensorflow, PyTorch, tinygrad, OpenCV
- **Others –** Git, Shell Scripts, Firebase, Burpsuite, Frida, Nmap, Metasploit

ADDITIONAL EXPERIENCE AND AWARDS

- Featured in an article by BlinkIt (Zomato) on my journey and the impact I've made during my time: link
- Contributed to the core open source ERPNext library used by the likes of Zerodha and so on: link
- Appointed as the **Developer Student Club Lead by Google** and represented the **Bangalore community (2017).**
- Actively work on CTFs, bug bounty programs on **HackerOne**, **BugCrowd** and **HackTheBox (2017-present)**.
- Held multiple Android application development workshops across Bangalore **(2017-2019)**.
- Won numerous local, national and international hackathons with the most prestigious ones being the **Smart India Hackathon (2022), Smart India Hackathon (2018)** followed by the **Singapore-India Hackathon (2018).**
- Published a research paper titled "Demand Drivers For Commodities" in the International Journal of Creative Research Thoughts **(2020)**.
- Built & deployed applications that are actively being used at **DRDO, India** and LEAs in **Nigeria (2021).**