Damodharan Thulasiram - Staff Engineer

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SUMMARY

I am a Staff Engineer with over 9+ years of experience in both frontend and backend(primary) technologies. I have worked on several 0 - 1 projects and have gained valuable knowledge in all facets of engineering. Consistently delivered projects on time and within budget while maintaining quality standards. I am always looking for new challenges, and thrive in an environment where I can learn and grow.

Primary Stack: Python, Golang, Java and AWS

EXPERIENCE

Simpl Inc | Senior Staff Engineer   Apr 2022 - Jul 2023

- Key Focus: Mentoring, OKRs and KPIs of Identity and OMS Systems
- Led a team of 6 engineers in architecting and developing an e-commerce platform processing ~1Cr in daily sales
- Created and maintained technical documentation (tech specs, design documents, sequence diagrams) for multiple subsystems and services
- Continuously monitor and improve bottlenecks with NewRelic, AWS Performance Insights and other profiling techniques (including but not limited to index corruption, index usage ratio and page fetches)
- Ensure SLAs by adhering and monitoring MTTAs(<2min) and MTTRs(<2hrs) with PagerDuty
- Implemented unit tests and automated functional tests covering ~80% of the code base and monitored using SonarQube
- Drove several cross team initiatives like: Sentry as default error monitoring platform and Stripe styled ids (Lexicographically sortable) to reduce query latencies
- Mentor senior engineers across the org, manage tech debt and drive best practices across frontend and backend stacks
- Helped organize public Golang meetup (June 2022) as a platform to attract talent

Simpl Inc | Senior Software Engineer   Sep 2020 - Apr 2022

- Key Focus: Stability of Core Ledger and Approval Systems
- Helped maintain Settlements system and legacy api monolith in Ruby on Rails
- Helped develop an unified eligibility profile to curb the tail latencies > 100ms from 99.9 to 99.99 percentile
- Driven best practices in golang especially in validations, errors and logging
- Improve observability metrics (both tech and biz) using Prometheus, Cloudwatch and Grafana
- Built the current documentation portal with Docusaurus(React, Tailwind) and OAPI3 spec compatible tooling with Python
- Developed and implemented an in-house fixed window rate limiter and Web Application Firewall (WAF) to ensure fair usage of eligibility calls
- Headed the Internal Python Community and gave various talks on topics like async and concurrency, underrated libs (available on my blog)

Treebo (Ruptub Solutions Pvt Ltd) | Principal Software Engineer   May 2016 - Aug 2020

- Key Focus: Performance of Revenue and Settlement Systems
- Managed and optimized a complex Pricing and Taxation System using a multi-dimensional rule engine implementation.

- Scaled the Couponing System which uses Drools engine for rule evaluation and back tracking (Java, Spring Boot, Hibernate) to handle millions of coupons
- Developed the Settlement system responsible for applying and adjusting settlements retroactively
- Infrastructure: Standardized Jenkins pipelines, Dockerized projects, and other cost-cutting initiatives in AWS
- Developed in-house Invoicing Solution inspired from DDD principles which reduced disputes by 40% and the TAT from 30days to less than a day
- Built "gevent" based auto scalable custom worker in Python which reacts to backpressure for RabbitMQ
- I was a contractor from Innoventes Technologies and worked in my capacity as a Software Engineer from May 2016 - Feb 2018

Infosys Technologies Ltd | Systems Engineer   Jun 2014 - May 2016

- I was actively involved in the transition of a more robust version of Inventory Tracking and Reporting system. I have also contributed minor roles in Credit Collection, Location, and General Ledger management systems for Finance Planning and Accounting Division, FritoLay - NorthAmerica.
- Mainframes, COBOL, JCL and DB2

EDUCATION   **Hindustan University**   Jun 2010 - May 2014
Bachelor - Mechanical

PUBLICATIONS   **Numerical Analysis of Wells Turbine**   Jul 1, 2014
https://www.scientific.net/AMM.592-594.1125

PROJECTS   **Simple Android Debloater** | Developer, Designer   Aug 2023 - Aug 2023
https://github.com/thulasi-ram/simple_android_debloater

Simple Android Debloater is a free and open source cross platform desktop app to disable unwanted system apps that carriers / OEMs can force install in our mobile phones. Built with Tauri(Rust) and SvelteKit(TypeScript).

Kombu Rabbitmq | Developer   Aug 2021 - Aug 2021
https://github.com/thulasi-ram/kombu-rabbitmq

Lightweight user friendly amqp consumer and producer alternative to Celery pluggable into both Django and Flask Frameworks

Django Feature Toggle | Developer   Sep 2017 - Sep 2017
https://github.com/thulasi-ram/django-feature-toggle

Feature Toggle implementation as a pluggable django app. Supports SimpleToggle, TimeBombToggle and other ways to manage release of new features that can be easily toggled on / off

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SKILLS   **Languages:** Python, Go, Java, SQL, Ruby, Rust, Clojure

Frameworks: Django, Flask, FastAPI, Celery, SqlAlchemy, Gin, Tokio, Axum

Infra: AWS, GIT, Postgres, MongoDB, Jenkins, CircleCI, Elastic Search, ELK, Docker, Prometheus, Grafana, Kafka, RabbitMQ, Sentry, HAProxy, Nginx, Caddy, Jaeger, NewRelic