

SARAT ADDEPALLI

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SUMMARY

- 13 years of experience in designing and scaling backend platforms
- Built several product offerings end to end at Paytm
- Exploring problems and solutions in AI and ML

TECHNICAL STRENGTHS

Programming Languages	Java, PHP, NodeJS, Python, C, C++
Scripting Languages	JavaScript, Bash, Lua
Web Frameworks	Laravel, Spring Boot, Flask, Express, Dropwizard, Django
Databases & Backing services	MongoDB, MySQL, ElasticSearch, Redis, Kafka, RabbitMQ
Technology Domains	Microservices, Backend, Cloud Computing, Scalable Architecture
Product Domains	Loan Collections, E-Commerce (Digital and Physical), FinTech
Other Tools, Frameworks	ELK Stack, AWS, npm, OpenResty, Jenkins, Consul

EXPERIENCE

Paytm	June 2015 - May 2024
<i>Senior Engineering Manager, Paytm CreditMate</i>	<i>Bengaluru</i>

- Scaled up the collections activities for Paytm Lending business on the CreditMate platform, by owning the loan account update, allocation, and payment workflows.
- This includes servicing ~1.5M customers for Personal Loans and Merchant Cash Advance products, as well as ~8.5M customers for PostPaid product on a daily basis.
- Scaled up the collections business for SaaS and CaaS clients on the CreditMate platform by consulting, customising, and enabling the onboarding of ~35 new clients over a span of two years.
- This includes servicing ~1.2M devices for Soundbox and EDC on a monthly basis.
- End to End ownership of the payments workflows, as well as allocation (to collection officers, agencies and agents) for the entire loanbook of all clients.

<i>Engineering Manager, PaytmMall Catalog</i>	<i>Bengaluru</i>
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- Took up end to end ownership of the PaytmMall Catalog charter, as part of organisational restructuring. This included transfer of ownership of multiple tech systems within a span of two months.
- Started with a team of five and grew the team strength to nineteen, as the business needs and product roadmap evolved. This includes consumer facing usecases, merchant facing usecases, admin/ops usecases, as well as some big data pipelines. Enabled the team in ramping up quickly, as we had to ensure business continuity even through the transfer of ownership.
- Responsible for executing all PaytmMall product roadmap asks which depend on catalog.
- Structured the team and enabled them to act as independent units, while being able to share learnings and collaborate effectively across units.
- Conducted performance reviews with individual teammates, and helped them plan their individual career development paths.

- Was responsible for the Travel Growth tech charter end to end, which included analyzing requirements, designing and architecting tech POCs for growth experiments, and implementation spanning multiple tech teams.
- Ensured on-time delivery to production and go-live with zero P0s for the Travel Pass product. Ensured its scalability as well, to be able to handle 60x spike in traffic, and quickly iterated over required features, which led to an avg daily GMV of ~\$10K.
- Managed a team of four, which included task allotment, sprint planning and execution, as well as planning and assessment of teammates' career and self goals, and annual reviews.

- *Smart Retail*: Led a team of four within the Paytm POS backend, and owned the master catalog. Optimised Elasticsearch mappings, query strategies and implemented autocomplete features. Fixed scaling issues by moving to a lock-free query strategy in SQLAlchemy ORM. Implemented a proxy for cart service.
- *Digital Gold*: End to end ownership of the digital gold product offering. This included feature analysis and feasibility, task planning and execution for implementing the product roadmap. Migrated infra from a tightly coupled recharges framework to an independent service with dedicated infra, with zero downtime.
- *Gift Cards*: Led a team of four to implement the gift cards product offering, within challenging deadlines. This involved setting up a new service, which included cross-functional coordination across several teams (UI, backend, devops, product).

- Joined the Marketplace team as a Senior Software Engineer, to ensure smooth transition of technology and services, from an earlier Java based monolithic application to a newly written NodeJS based microservices platform.
- Developed a mini-framework and stewarded integration of payment services for new recharge vendors (mobile, tv, landline, electricity, gas, education, insurance, and other new verticals), in the new NodeJS platform. This resulted in increasing the success rate of recharge transactions from ~87% to ~95%.
- Promoted to Team Lead within six months of joining the company, by displaying leadership qualities, technical capability, and ownership of high priority tasks, and being able to contribute significantly to the business goals.

- As a Lead Engineer in the Open Source Management team, was responsible for many open source libraries used in the company's proprietary middleware on a diverse product line of embedded architectures (arm, mipsel, etc.). This included tracking the developments in the upstream opensource community, analyzing, porting and upgrading versions, analysis of code quality, finding bugs in the usage of these libraries, fixing them, and contributing these fixes to upstream.
- Designed and wrote a custom utility in Python, to index millions of proprietary C++ LOC, to detect "usage" of an open source library anywhere within the huge code base. Extended this utility to analyze ARM binaries as well.

- Minimized project costs by demonstrating a Proof of Concept, to check the stability and run-time robustness of more than 20 cross-compiled libraries on ARM 64 architecture (virtualized hardware, using QEMU). Also used Open Build Service to host, automate the cross-compilation of, and test these open source libraries on ARM 64 architectures.
- Tracking, fixing, testing, and releasing patches for severe security vulnerabilities in the OpenSSL library (such as Heartbleed and CSS Injection), used in proprietary middleware. This activity included ownership of risk analysis, cost and effort estimation, and feasibility report of fixing these vulnerabilities across different product lines (embedded chipsets).

ACHIEVEMENTS

- Awarded Advanced Certification in Artificial Intelligence and Machine Learning, by IIIT-Hyderabad and TalentSprint in 2019.
- Paytm Rockstar Award, in recognition of end to end ownership of the Paytm Gold product offering.
- Samsung Employee of the Quarter Award, Q2 2014, in the category of Smart at Work.
- Samsung Best Project of the Quarter Award, Q3 2012, for Open Source Management.
- Ported crypto algorithm optimizations, written in assembly from OpenSSL to GnuTLS, as a POC to demonstrate performance improvements.

EDUCATION AND ACADEMIA

IIIT-Hyderabad (International Institute of Information Technology) 2011
Academic Research *Hyderabad, Andhra Pradesh*

RESEARCH PUBLICATIONS

Centre for Security, Theory, and Algorithmic Research

[Secured Multi-robotic Active Localization without Exchange of Maps](#) ARES 2009
[Generalized Robust Combiners for Oblivious Transfer](#) ARES 2009
[On Privacy Preserving Convex Hull](#) ARES 2009

DA-IICT (Dhirubhai Ambani Institute of Info Comm Technology) 2007
B.Tech. in Information Communication Technology *Gandhinagar, Gujarat*

- Overall CGPA: 70.8%

HOBBIES AND INTERESTS

I am an avid reader of books. Text books, fiction, fantasy, manuals, documentation or anything else, as long as it is either entertaining or illuminating. I love well designed and accessible content. I like losing myself in the great outdoors, be it on hiking or biking trails, or long road trips. Apart from this, I also love contributing to open source, and secretly hope to someday take up full maintainership responsibility of a widely used repo.