

Ramakrishna Nadella

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Transfix (Feb 2020 - Present) *Principal Engineer*

Freight brokerage and software services provider for trucking/logistics

- Designed and implemented a machine learning platform to unlock faster iteration cycles for data scientists and reduced their dependency on the infrastructure team to train/host models on production data. Later added a framework for testing new data science models
- Architected and implemented in-house EDI capabilities, which dramatically reduced time and cost to onboard new enterprise shippers running legacy transportation management systems
- Coached engineering, product and design leads in spinning off carrier and shipper interfaces as software service offerings independent of the brokerage business
- Solved a latency issue within a critical feature implemented in Ruby by moving the performance critical parts of the code to Rust, packaged as a shared library and called from Ruby using FFI
- Technical leadership:
 - Created an infrastructure building blocks document to consolidate overlapping components and to serve as a reference for teams to decide which components to use to implement different features
 - Represent the CTO in early product direction, architecture and technical design review meetings
 - Documented steps and best practices for schema changes to improve development velocity
 - Created reference DataDog dashboards and alerts that covers various metrics to serve as a template for teams to copy/reuse

Paddle8 (October 2016 - Jan 2020) *Principal Engineer*

Online platform for art collectors hosting auctions, events and collaborations with brands and celebrities. Joined as a Principal Engineer reporting to the interim-CTO of a multi-national org. After a scale back of operations, took over leadership of the tech team while staying hands-on with code

- Spearheaded key initiatives to pay off technical debt and simplify architecture to re-focus the team on executing new ideas for the business
- Rewrote last piece of the legacy backend platform (core auction bidding engine) to the new python/django backend that had been started almost 2 years prior
- Modernized & consolidated payment processing to Stripe from a complex & brittle multi-vendor setup involving PayPal / Payflow, AmEx. Introduced ACH payments using Plaid verification to reduce payment processing fees
- Introduced image content based search using Google's Cloud Vision API – enabling search by theme that is more accessible to new art collectors
- Technical leadership:
 - Introduced technical design documents and reviews for new projects, postmortems for incidents and run-books for common tasks and a standardized dev setup
 - Setup an observability stack and started an engineering on-call rotation
 - Improved scalability & overall platform reliability to deal with varying traffic patterns of the platform
- Led various large scale initiatives that spanned engineering, product and design:
 - Launch a web platform redesign, working with a design agency. Nominated for a [Webby award](#)
 - Merge separate desktop and mobile web codebases and introduce GraphQL

- Rewrite iOS app from Objective-C (pre-ARC) to React Native + GraphQL, making app development more accessible. Resulted in new features added to the native app, that had previously been stagnant

Etsy (April 2014 - October 2016) *Senior Software Engineer*

- Part of the core team that helped Etsy transition to an API first platform to support both web and native mobile clients and third party partner ecosystem
- Initiatives to help scale the API cluster:
 - Designed and implemented “fanout manager” — an optimistic distributed sub-request counting scheme — to ensure fair use of the API cluster
 - Worked with the data science team to analyze log data to make a case for an HTTP cache in-front of the API cluster and to determine the optimal cache TTL
 - Tech lead on cache invalidation prototype – to improve cache hit rates by increasing TTLs with an invalidation system using a Kafka stream of DB updates
- Led a critical transactional data migration project that involved moving a billion rows of financial data from the legacy DB (scaled up postgres) to Etsy’s new sharded MySQL setup. Incurred only minutes of downtime during the cutover
- Actively engaged with and learned from Etsy’s culture of blameless postmortems and metrics driven development
- Tech lead on the SSL cert issuing system for Etsy’s seller website product (Pattern by Etsy). Worked with the security team to architect & build an automated cert issuing and renewal system

CloudFlare (August 2011 - April 2014) *Full-stack Engineer*

- Early engineer at a fast growing startup with a broad scope
- Lead engineer on key initiatives that helped Cloudflare differentiate itself from being just another CDN – “apps platform” to demonstrate the intelligent edge network concept, hosting partner integrations to scale customer base, build a customer facing API and easy to use web interface
- Built a browser extension that played a crucial part in motivating the team by being able to see the reach/impact of work and also served as a tool for the sales & support teams

EDUCATION

M.S. Computer Science San Francisco State University

On-Campus Jobs & Internships – worked with the Information Security Office on security assessments and mapping the campus network. Worked on the campus learning management system at the Academic Technology division and interned at OPSWAT porting custom XML parsing to libxml and adding concurrency to a Java/Swing app to improve UI responsiveness

B.Tech, Electronics & Communications Jaypee Institute of Information Technology

TALKS

- nginx Conf 2016, Austin – high performance caching system at Etsy (nginx + lua)
- Peers Conf 2017, Seattle – dealing with technical debt at Paddle8
- Christie’s Blockchain + Tech Conference 2018, London – blockchain’s impact on marketplaces panel
- Teach Us Something Technical Meetup, New York – profiling and flame graphs in Go
- BuiltIn NY – article about the machine learning platform at Transfix