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Work Experience

Mar '25 – Jul '23

Co-founder & CTO — CodeStory (Y Combinator S23)

- Led engineering for Aide, an AI-native IDE, processing 10 billion+ LLM tokens a day with a state-of-the-art 62% score on the real-world engineering benchmark, SWE-bench Verified, achieved by scaling test-time inference.
- Exposed editor internals like AST, LSP, document buffer, SCM and terminal as real-time inputs and 'tools' over a bi-directional streaming RPC layer for the code editing agent to power inline auto-completion and chat features.
- Built code search and repomap (using tree-sitter) as tools for the LLM to extract context from large codebases.
- Optimised buffer decorations and real-time diff rendering and UX to match 200 tokens/sec streaming output.
- Used Electron webviews for browser previews of frontend codebases, with built-in react-devtools mapping DOM nodes to source code as context, and auto-capturing console logs, network logs and screenshots for the agent.
- Deployed the auth and metering Go service, hit for every LLM call with client-side buffering, to GCP Cloud Run.
- Raised $1.4M in pre-seed funding, managed 2 founding engineers and a Discord community with 2k+ members.

Jul '23 – Jun '20

Tech Lead - Payments — Setu

- Co-led the design and implementation for UPI switch, an enterprise-ready implementation of the UPI acquirer spec handling 500 million transactions a month from 150k merchants, deployed on-prem for Indian banks.
- Rebuilt the money movement architecture within a month amidst major regulatory changes, with no downtime.
- Successfully passed InfoSec requirements for acquiring a Payment Aggregator license through several security improvements to the platform, failing which would have curbed the organisation's ability to process payments.
- Managed a reporting team of 6 engineers through an acquisition, streamlined planning, on-call, incidents and docs, built internal tools & dashboards atop a new data lake to eliminate daily engineering support.

Software Engineer 3 - Payments

- One of only 2 engineers owning Setu's highest revenue generating products, UPI Deeplinks & BBPS Bill Collect.
- Designed and built refunds on UPI Deeplinks, with data and fund movement for automated & API-initiated flows.
- Wrote Setu's developer-facing console from scratch, covering authentication & authorization using Keycloak, 2FA, onboarding, product configuration, real-time & offline KYC, reports, user & API key management.
- Managed the whitelabelled integration of BBPS Collect into RazorPay with seamless sign-in for their merchants.
- Built a customizable no-code tool for billers to collect bill payments via BBPS by simply uploading Excel sheets.
- Created a specialised shortlinks service for UPI Deeplinks to handle the payment flows for web, Android & iOS.
- As an early engineer, grew the team from 5 to 35, gained expertise in Go, ECS, SQS, RDS, S3, DynamoDB, Cloud-watch, Terraform, Web security, fixing production with service & settlements continuity even after failures.

May '20 – Aug '18

Software Engineer 2 - Mint — Intuit

- Migrated the email & push notifications system (Android + iOS) for Mint's 4M MAU to a new system built on Kafka, allowing scheduled and on-demand pushes configured through an internal dashboard.
- Led CCPA compliance implementation for 'bills' with an async architecture for reading and deleting user data.

Software Engineer - Quickbooks Online (QBO)

- Built GraphQL APIs with caching enabled through Redis for cross-channel (Web, iOS and Android) billing support.
- Refactored 3 critical APIs with better design patterns and set up error & performance monitoring on Splunk.
- Wrote a Java library adopted by several teams teams to publish business & performance metrics to Wavefront.

Site Leader for Open Source - Intuit India

- One of only 14 people working globally to set up Intuit's Open Source and Inner Source program from scratch, with me leading open source licensing specification with the legal team and building the community in India.

Jul '18 May '18	**Google Summer of Code (GSoC) student**	**gRPC (Google / Cloud Native Computing Foundation)**

Google Summer of Code (GSoC) student   **gRPC (Google / Cloud Native Computing Foundation)**

Jul '18
May '18
- Added support for building gRPC Python's codebase with Bazel, using custom Skylark rules for Cython modules.
- Extended support to Google's internal CI (Kokoro) as well, allowing incremental build & test runs with Bazel.
- Reported issues with Python library module-level logger specification and Bazel's experimental pip support.

Jul '17
May '17
Software Engineer Intern - Quickbooks Online (QBO)   **INTUIT Intuit**
- Wrote a GraphQL API in Java for opting out of a QBO trial subscription, with 95% unit & integration test coverage.
- Worked on a Machine Learning model for predicting potential paid customers for QBO from trial user data.

Apr '16
Feb '15
Software Engineer - Image Processing   **Autonomous Underwater Vehicle Research Group**
- Wrote underwater path following & buoy detection algorithms with OpenCV on ROS (Robot Operating System).
- Worked on adaptive image segmentation using neural networks for adjusting to dynamic lighting conditions.
- Built an AngularJS dashboard for remotely monitoring and controlling the bot's image parameters.

Education

2022	General Management Program	Stoa School
2013 - 2018	Bachelors + Masters in **Computer Science and Engineering**	Indian Institute of Technology, Kharagpur
	Teaching assistant for Compilers (CS31003) and Data Structures (CS19001)	

Publications

- Sandeep Kumar Pani, **Naresh R.**, Pawan Goyal, and Plaban Kumar Bhowmick. 2018. **Learning to Extract Comparison Points of Entity Pairs from Wikipedia Articles.** In Proceedings of the 18th ACM/IEEE on Joint Conference on Digital Libraries (JCDL '18). Association for Computing Machinery, New York, NY, USA, 373–374. https://doi.org/10.1145/3197026.3203909

Open Source

- **Fictoan**: Maintainer for a design system built with React in Typescript for designers to build UI using English-like markup.
- **MetaKGP**: Maintainer for an Open Source association of student hackers from IIT Kharagpur, where I also contributed key projects to store and index question papers from the university archive and student contributions, and a service to convert timetable screenshots to Google Calendar events for the semester.
- **LTTKGP**: A collection of projects I wrote to power a community of 5000+ members on Facebook for sharing and listening to music. This includes a Python package to strip YouTube video titles of unnecessary metadata, a package to fetch metadata from Spotify APIs, a scraper to periodically fetch and store new music posted to the Facebook group, a Golang service exposing APIs to fetch music shared by the users and a React frontend to listen and filter through all the posts seamlessly.
- **Lowpolify**: A Python package and hosted service to convert any image to low-poly art using only traditional image processing algorithms implemented using native bindings to OpenCV in C for high performance.

Hackathons

- **Runner-up, FOSS Hack 2020**: Won 25k INR for building a service to receive HTTP requests, transform the payload using user-written scripts and publish to listening webhooks.

Technical Skills

Languages	Javascript/Typescript, Go, Python, HTML, CSS, SQL
Tools	Terraform, Docker, go-chi, sqlc, React, NextJS, Tailwind, Redux, TanStack Query, Electron, Flask, Celery, NodeJS, Bazel, OpenAPI, Webpack, Vite, Ginkgo, Playwright, Vitest, Framer, Marshmallow
Platforms	AWS, GCP, Elasticsearch, Kibana, Grafana, Stripe, WorkOS, Keycloak, OpenResty/Nginx, GH Actions, Gitlab CI
Databases	Postgres, DynamoDB, MongoDB, Redis, SQLite