

"Leadership is the art of giving people a platform for spreading ideas that work, while leading the way."

Summary

Versatile, hands-on engineering leader with a record of pioneering technical innovations in metadata-driven platforms (PaaS), distributed systems, microservices, ETL, and AI-centric solutions, with a strong emphasis on privacy and security.

Passionate about the intersection of privacy, cybersecurity, AI/ML, and blockchain. Active in open-source projects promoting privacy focused AI agent ecosystems. Self-host open-source LLMs on personal hardware to ensure privacy and hands-on experimentation at home.

Work Experience

ADP Innovation Labs - Lyric

New York City, USA

ENGINEERING MANAGER

May, 2015 - Current

Lyric (aka Lifion) is an ADP-incubated startup building a metadata-driven, multi-tenant, no-code PaaS for HCM and Payroll applications. Below are my key achievements during my 10-year tenure at ADP.

- Led part of development of an AI-powered client onboarding tool using LLMs to automate mapping and transformation of client HR and Payroll data to Lyric schema, with AI-generated SQLs from user text input. Achieved multifold acceleration in client implementations and major reduction in manual effort.
- Pioneered a configurable ETL product for payroll outbound data integrations, tailored to client needs using pre-set data sources and go text templating. Achieved a 40x improvement in implementation time and developer productivity.
- Architected microservices and distributed systems using Node.js, Golang, Python, and Java, integrating Kafka, RabbitMQ, RDS, and ElastiCache for scalable, cloud-native solutions on AWS and related platforms to enhance the Lyric metadata-driven platform enabling rapid web app creation.
- Guided diverse projects from inception to long-term maintenance, creating roadmaps, overseeing quarterly planning, managing resources, and delivering annual OKRs.
- Directed high-performing global teams across New York City, Canada, India, and South Africa, cultivating a high-performance culture through strategic hiring and comprehensive mentoring across all levels.
- Developed deep expertise in HCM domains, including Global Payroll, HR, Benefits, and Talent.
- Relocated from ADP Hyderabad to New York City office in 2018 to support strategic initiatives.
- My diverse portfolio of projects spans the following strategic focus areas—

AI assisted Client Onboarding

ENGINEERING LEADER

2022 - Present

Tech Stack: **LLMs**, Node.js, TypeScript, GraphQL, Kafka, Java, AWS S3, RDS, Dynamo

- Leading one of core engineering team to build Lyric's AI-assisted client onboarding platform, setting ambitious targets like 2 day client implementations and delivering internal tools and workflows that have substantially accelerated project timelines.
- Architected an implementation facing tool empowering associates to join, transform, and map HR/payroll data using plain text input to LLM generated SQLs, enabling powerful no-code customization.
- Established robust privacy safeguards: All mappings, transformations, and joins are performed solely on CSV/XLSX headers, ensuring no actual client data is shared or exposed to the LLM.
- Led initiatives to secure LLM automation using LLM as a judge, with prompt injection detection, mitigation strategies, and guardrails to ensure strict alignment between user intent and LLM output.
- Launched a streamlined onboarding questionnaire platform transforming lengthy client interviews into a structured workflow that directly translates answers into Lyric system configuration. Served as architect cross-location teams in NYC and Atlanta.
- Launched a comprehensive client management suite handling full client lifecycle from onboarding to billing and mini-app management, centralizing metadata accessed at every login, leading multiple teams in NYC and India.
- Built a tool for bulk employee data imports including work agreements, positions, and earnings/deductions with comprehensive business validation to ensure data integrity for complex HR/payroll setups.
- The AI assisted onboarding tool amplifies usability of our existing suite implementation teams previously spent months converting client schema using in house tools; now they interact with an LLM to transform data. We strategically apply AI to solve specific inefficiencies, leveraging an established suite of tools.

Configurable Outbound Integrations

ENGINEERING LEADER

2020 - 2022

Tech Stack: **Golang**, RabbitMQ, Go Text Templating, JSON, FTP, REST, LLM

- Convinced ADP leadership with a proof of concept for a scalable outbound integration system, earning strong support from the VP of Application Development. Hired and led distributed teams across New York and India, delivering the tailored ETL tool from 0-to-1 in under 6 months and driving wide adoption.
- Designed and implemented core algorithms for dynamic data merging of pre-defined datasets using metadata-driven (AST), multi-threaded (Go routines). Go Text Templating made data logic accessible to non-developers. Established FTP and REST delivery methods to transmit data to integration partners.
- Reduced development time for HR, Payroll, Talent, Benefits, and Time integrations from 4 weeks to 4 hours (a 40x improvement), freeing up 30+ developers for other projects. Enabled a lean team of 10 to manage integrations and cut client implementation time by a month, since each client typically had 4 outbound integrations, earned organization-wide recognition.
- Today, the tool generates 30,000 client files per pay period at Lyric. Added Agentic AI features to auto-generate Go text templates from user input, further streamlining workflow and reducing cognitive load for Integration Specialists.

New Hire On-boarding

ARCHITECT

2019 - 2020

- Streamlined new hire onboarding by unifying disparate HR, payroll, benefits, and time workflows into a single questionnaire with comprehensive business validation, eliminating repeated questions and enabling a one-stop onboarding experience for each client associate.
- Implemented a metadata-driven framework supporting modular mini-apps: onboarding flows dynamically adapt to enabled client packages (e.g., "Time"), only surfacing relevant steps and ensuring tailored, automated experiences.
- Developed a bulk import tool enabling clients to onboard multiple associates simultaneously, streamlining large-scale new hire processes.
- Led new hire onboarding team across NYC and South Africa, delivering a unified one-stop onboarding solution.

Talent Product

LEAD APPLICATION DEVELOPER

2018 - 2019

- Integrated TMBC (The Marcus Buckingham Company) strengths-based application into the Lyric ecosystem, designing backend calculations to fully support the strengths-based approach for clients.
- Designed and developed performance management applications for Lyric, enabling robust goal setting, review workflows, and continuous feedback for client organizations.
- Built and launched Engagement Pulse: a solution to collect and analyze engagement and alignment data across associates, providing actionable insights into organizational health.

Payroll

LEAD APPLICATION DEVELOPER

2015 - 2018

- Early member of the Lyric Payroll product team—learned payroll by manually processing real use cases alongside product owners to inform robust product and tool development.
- Designed and developed client-facing data entry platforms, including bulk import tools and interactive pay data grids for efficient associate earnings, deductions, benefits, and tax management.
- Integrated with payroll engines like Autopay to automate payroll runs, creating Node.js services to translate engine output into Lyric schema, and iterated features based on feedback from clients, SMEs, and implementation teams.
- Led a development team in India as technical lead, overseeing delivery and enhancement of critical payroll capabilities.

Rideshare Bot

Hyderabad & Bangalore, India

HEAD OF ENGINEERING

Jul, 2016 - Jun, 2017

- Built rule-based Facebook bots to deliver interactive chat experiences that connect people in need with those willing to share, using geolocation.
- Developed a Node.js backend and PostgreSQL with PostGIS for efficient geospatial matching.
- Implemented a ride-matching algorithm: first matched users within a 3km radius using geospatial queries, then used Google Maps APIs to find the closest route matches for origin-destination pairs.
- Hired and led a team of 3 developers while building and scaling these bots.

RIDESHARE BOT	Connects people going the same route to share their ride and split the cost. [10K Users]
FLAT SHARE BOT	Connects people who wants to share their flat with the people looking for flats. [50K Users]
LIFE SHARE BOT	When patients require blood all the donors who signed up within 5km radius will get connected.
VISA BOT	This is a conversational chat bot that helps you practice US visa interview.

Projects

Prompt Repo

OPEN-SOURCE CONTRIBUTION

New York City

Sep, 2025 – Current

- Tech Stack : **AI Agents, Langraph**, Next.js, Python, Evaluations  [Prompt Repo](#)  [Prompt Repo](#)
- Built a privacy-first prompt registry and [playground](#) for users to save, version, audit, and rapidly iterate on prompts in their own git repositories, ensuring full ownership and control.
- Implemented [automated prompt evaluation](#): exact/semantic match, and LLM-as-judge metrics for deep validation and relevancy.
- Designed a prompt optimizer agent to refine prompts, recommend models and parameters, enable structured outputs, and enhance security—systematically preventing injection and leakage.

Any LLM, Any Agent - by Mozilla

OPEN-SOURCE CONTRIBUTION

New York City

Jul, 2025 – Present

- Tech Stack : Python, Langchain, Agno, LlamaIndex, Pydantic, OpenAI, OpenTelemetry [1.3k stars each].  [Any-LLM](#)  [Any-Agent](#)
- **Any-LLM**: Provides a unified interface for accessing and switching between any major LLM provider, local or cloud, using only a configuration change. I proposed and developed an [end-to-end feature \(link\)](#) for listing all supported models per provider in the agent platform, making model selection easier and more transparent for users.
- **Any-Agent**: Enables developers to build and evaluate AI agents on multiple agent frameworks through a single, interchangeable Python interface. Supports OpenTelemetry tracing, evaluation, monitoring and encourage portability and composability in the agent ecosystem.

Multi Cloud Kubernetes Platform

PERSONAL INTEREST

New York City

Sep, 2025 – Present

- Tech Stack : Kubernetes, OpenTofu/Terraform (IAC), ArgoCD, Grafana, Cilium. [...learn more](#)
- Built a secure, multi-cloud Kubernetes platform from scratch for personal projects, hot-swapped VPS OS to [TalosOS](#) (secure, minimal, Kubernetes-approved), and interconnected nodes using [Tailscale](#) for secured management access and [KubeSpan](#) (WireGuard VPN) to form an encrypted private network node-to-node communication with full-disk and at-rest encryption.
- Automated deployments via ArgoCD, integrated monitoring (Prometheus, Grafana, Loki), TLS automation (cert-manager) on the internal network; ensured only public endpoints were exposed through isolated load balancers for maximum security.

DEV Ops & ML Ops

NON PROFIT CONTRIBUTION

New York City

Nov, 2020 – Sep 2022

- Tech Stack : Kubernetes, HELM, Airflow, MLFlow, Evidently AI, Ray Clusters, Prometheus, Grafana, Loki. [...learn more](#)
- Set up Kubernetes-based DevOps and MLOps infrastructure on AWS for nonprofit teams like DataKind, integrating Jenkins (CI), ArgoCD (CD), monitoring tools, and diverse data sources (PostgreSQL, S3, Snowflake) with custom Helm charts to optimize scalability and cost.
- [Airflow](#): Automated ML data workflows with Python DAGs and Kubernetes Operator for robust orchestration and infinite scaling.
- [MLFlow](#): Enabled experiment tracking and model storage with AWS S3 backend, supporting reproducible ML lifecycle management.
- [Evidently AI](#): Deployed continuous model drift monitoring and post-production evaluation for operational assurance.
- [Ray Clusters](#): Supported distributed parallel model training for scalable ML workloads across Kubernetes clusters. Automated provisioning of Ray Clusters with dedicated endpoints using Jenkins-driven Infrastructure-as-Code, allowing users to create scalable clusters

Kubernetes Cluster Optimization - Noisy Neighbor

WORKPLACE EXPERIMENT

New York City

May, 2021 – June, 2021

- Tech Stack : Kubernetes, Python.  [k8s-limits](#)
- Identified and fixed a CPU allocation flaw in production Kubernetes clusters that risked starving critical workloads.
- Demonstrated risks by simulating a noisy neighbor; showed how blindly increasing CPU resources worsened contention. Explained that CPU is shared in cycles and best-effort, so allocation must be relative to workload priority.
- Presented solution and implemented namespace-level limits for non-priority workloads to optimize infrastructure.

Bitcoin Price Prediction using Twitter Sentiment & ICT

PERSONAL INTEREST

New York City, USA

Jun, 2019 – Present

- Tech Stack : Node.js, Python, pandas, keras, numpy, scipy, scikitlearn, PyTorch, gRPC, Prophet
- Built a Bitcoin price prediction pipeline leveraging sentiment analysis on over 1GB/day of Twitter tweets, storing data in PostgreSQL time series extension.
- Fetched price data every minute from Bitstamp and calculated ICT concepts such as Order Blocks (OBs), Fair Value Gaps (FVGs), Fibonacci levels, etc., to enrich feature space.
- Applied time series forecasting using PyTorch Forecasting and Prophet (with Nixtla libraries integrated later), combining sentiment and derived ICT signals as model inputs for more accurate price predictions.

Telegram Bot for Price & upcoming Events of given coin

PERSONAL INTEREST

New York City

Jul, 2019 – Jul, 2019

- Tech Stack : Node.js
- Built a Telegram bot to deliver real-time crypto prices and upcoming coin events to myself and friends, before such holistic apps were common.

Resume Shortlisting using Machine Learning

WORKPLACE EXPERIMENT

Hyderabad, IN

Jan, 2016 – Mar, 2016

- Tech Stack : Dato – Tool, Python.
- An intelligent classification tool that spits out the probability of shortlisting of a resume, by building the sentiment analysis on the corpus which has training set of resumes.

Planning Poker – Rally integrated Agile estimating tool

WORKPLACE EXPERIMENT

Hyderabad, IN

Jun, 2015 – Aug, 2015

- Tech Stack : Node JS, Mongo DB, Backbone, Bootstrap, Socket.io.
- Planning Poker is a consensus-based Agile estimating tool, developed as an e-tool to facilitate planning and grooming sessions by integrating with Rally.

Automated Video Tagging for Search

BACHELORS PROJECT

IIIT Basara, IN

Jan, 2015 – May, 2015

- Tech Stack : Java SE, CMU Sphinx4, ffmpeg - Tool, JavaScript.
- Developed a web tool that lets users search academic video lectures by keyword and jump directly to the relevant segment, using speech-to-text to create timestamped captions and enable precise video tagging.

Skills

Programming	Golang, Node.js, Python, Java, Agnostic to any language - Problem defines what language to use
Microservices	gRPC, GraphQL, REST, Soap
Monitoring	Prometheus, Grafana, Loki, Kibana, DataDog, Kibana, Splunk
DEV Ops	Kubernetes, Jenkins, ArgoCD, GitHub Actions, Helm, OpenTofu/Terraform, Cilium Networking, Cert Manager, Cloud Native
ML Ops	Airflow, MLFlow, Evidently AI, Ray Clusters
Agentic AI	Langraph, Pydantic, Agno, pandas, keras, numpy, scipy, scikitlearn, PyTorch, AI Agents, Context Engineering
AWS Cloud	Compute, S3, Bedrock, SSM, IAM, EKS, Networking, Lambda, SQS, Kafka, ECR, Route53, Secrets, Cloudformation
Databases	MySQL, PostgreSQL, PostGIS, MongoDB, AWS RDS, AWS Dynamo, Redis

Personality

TMBC Standout Assessment has resulted in **Pioneer & Teacher** are my two top personality traits. [link to the assesment report](#)

- “0 to 1” builder; execute and deliver from scratch, get things done attitude. Impact-driven, not title-bound.
- Privacy-first mindset; prioritize data ownership and security.
- Thrive in ambiguity; excel where requirements are unclear. Adapt rapidly to changing priorities and challenges.

Moonshots

My personal aspirational projects that I want to develop in next 5 years apart from work.

- Photo Share: End-to-end encrypted, peer-to-peer file sharing via [iroh protocol](#) over [QUIC](#).
- End-to-end encrypted [agentic memory](#) framework to mitigate cross-tenant data leakage in LLMs and protect user privacy.
- Personal [AI Assistant](#): Self-hosted, [privacy-first](#) daily assistant that learns routines.
- POSIT: Zero-knowledge proof, end-to-end encrypted global ID on blockchain.

Education

2015	Bachelors in Computer Science , International Institute of Information Technology - IIIT Basara	Basara, India
2015	Bachelors in Business Management , International Institute of Information Technology - IIIT Basara	Basara, India
2011	Pre-University Course [XI,XII] , International Institute of Information Technology - IIIT Basara	Basara, India
2009	Secondary School of Education (SSC) [X] , Ravindra High School	Siddipet, India

Internships

2015	Senior Web Designer & Developer , @Kuponize - A coupon site from local businesses.	Hyderabad, IN.
2014	Web Designer & Developer , @MeraMedicare - An online medicine - eCommerce site.	New Delhi, IN.
2014	UI & Graphic Designer , @MySahaay - An online top quality service provider.	Hyderabad, IN.
2013	Web Developer , @ForeVision - A consulting company.	Mumbai, IN.