

Agile hands-on engineer with 11+ years of experience leading research, engineering, and product development for big data solutions, applied AI, and fintech. Proficient in DevOps, security, and designing scalable solutions across diverse technology stacks. Built and scaled engineering teams from zero to 20+ members and led the development of a neo-bank platform processing \$2 million in transactions within six months of launch.

EDUCATION

Arizona State University, Arizona, USA

Master of Science in Computer Science

National Institute of Technology (NIT), Tiruchirappalli, India

B. Tech. in Computer Science and Engineering

SKILLS

Programming:	Python, Golang (Go), Rust, Bash, C++
AI Tools and Packages:	AWS Sagemaker, Bedrock, Modal.com, Baseten, Pinecone, LangGraph, OpenAI, Gemini
Big Data Technologies:	ETL Pipelines, Spark, Elasticsearch, Clickhouse, Apache Airflow, Prefect, Temporal
Web Technologies:	Django, Flask, Gin, TypeScript, JavaScript, Next.js, NodeJS, React, WebSockets, Shadcn
Packages and Tools:	PostgreSQL, MySQL, SQLite, MongoDB, DynamoDB, Redis, RabbitMQ, Celery, Pydantic, Nginx, Caddy, LaunchDarkly, Kafka, Redux, Amazon SP-API, Stripe
DevOps:	CI/CD, Argo CD, Docker, Kubernetes, Helm, Jenkins, Ansible, Terraform, Pulumi, Nagios, Prometheus, Loki, Grafana, Datadog, New Relic, GCP, AWS (EKS, ECS, EC2, ECR, RDS, S3, Lambda, CloudFront, VPC, Kinesis, SES, OpenSearch, SQS), OpenVPN, Cloudflare Zero Trust

WORK EXPERIENCE

Chief Technology Officer, Listing Hero AI, Spain

Aug 2024 – Present

Led hands-on development of Listing Hero AI which helps brands and agencies to manage listings globally.

- Built a gen AI platform using Django and Next.js for ecommerce content creation, image generation, and localization for over 18 integrated marketplaces (Amazon and Shopify), **reducing listing management time by 75% for brands and agencies.** <https://listingheroai.com>
- Engineered a horizontally scalable AI infrastructure using Prefect, enabling seamless **processing of 100,000+ AI workflows daily at a highly optimized infrastructure cost (< \$300/month).**
- Developed and deployed AI workflows including RAG and vector stores, with **NVIDIA GPU-based training and inference using Modal.com, Baseten/Truss, Replicate, Pinecone, LangChain, OpenAI, and Gemini.**

Head of Engineering, India

Apr 2023 – Aug 2024

First engineering hire for two sister companies under the same promoters. Built engineering and product teams from 0 to 20+ team members, **leading end-to-end development of fintech and e-commerce platforms that drove millions in revenue and enabled 500+ brands to go global.**

- **Trade Pe Tech Private Ltd.**
 - Launched TREQ payments, **a multi-currency neo-bank focused on cross-border payments (similar to Wise and Payoneer) using Visa's Currencycloud stack, scaling to \$2 million in transactions within six months of launch.**
 - Created a global checkout solution with intelligent payment routing across **Stripe and Adyen to accept payments in over 120 currencies with APMs, achieving 85%+ payment success rates.**
 - Led TREQ Payments' **achievement of PCI DSS compliance and PA-CB India banking license**, ensuring adherence to global financial regulations and standards (VAPT, KYC, and AML screening). <https://tradepe.com>
- **GoGlocal Private Ltd.**
 - Initiated and directed the development of GoGlocal Export Central, **enabling sellers to list, manage, and fulfill products across more than 50 global marketplaces** including Amazon, eBay, and Walmart using 30+ API integrations.
 - **Enabled 500+ national brands to go global and achieved \$3.2 million ARR** by developing 10+ internal tools to help with global export compliances, order/shipping automations, listing, ads & marketing, and content generation.
 - Led a cross-functional team of engineers and data scientists in developing company's gen AI capabilities (text and image) to generate country-specific content **leading to 2x improvement in Listing Quality Score.** <https://goglocal.com>

Software Development Engineer III, Zomato Private Ltd., India

Oct 2022 – Apr 2023

Headed the supply chain projects at Zomato to help achieve the company's mission of delivering 100% of orders in 10 minutes.

- Redesigned a legacy warehouse management system into a modern, scalable microservices architecture using Golang (Go), leading to a **70% reduction in bugs and 80% fewer failures**, thereby increasing reliability.
- Led the effort to streamline processes across 30 fulfillment centers by creation of EDI to integrate with large scale vendors (Unilever, Nestlé etc) to streamline inward and billing processes to **reduce operating cost by millions of dollars annually**.

Chief Technology Officer, Quant Dynamix Inc., USA

May 2020 – Oct 2022

Led the company to develop innovative software for enterprises to help increase team and operational efficiency.

- Created an **ERP+MES+BI software for a chemical company with over \$40 Million/year in revenue** to streamline the company's sales, orders, manufacturing execution, research operations, and dispatch management.
- Delivered a map-based fleet management web+mobile app for pool service providers and irrigators to manage resources, operations, and team. **The ML algorithm is helping clients save over 2 million gallons of water every year.**
- Launched a modular cloud-based data platform Quantale, a three-in-one replacement for the entire ELK stack, which **reduces data analytics pipeline setup time by at least 3 weeks for businesses.**
- Architected and led the development of Encome, a stock market discovery, analytics, and trading platform hosted on AWS. Encome allowed users to connect existing trading accounts and trade directly from one unified interface.

Applied Research Lead, Decision Theatre, Arizona State University, USA

Jan 2016 – Apr 2020

Promoted from Graduate Researcher to lead a diverse team of engineers and researchers in an enterprise research division, **converting research into production solutions across 10+ applied research projects partnering with academia and industry.**

- **Precinct Pro Algorithm, Co-Inventor**
 - Invented a patented GIS-based algorithm, now used by election officials in one of the largest US counties for creating precinct voting maps, drastically **reducing the development time from two months to just five minutes.**
- **Pulse Data Platform, Project Co-Investigator** - <https://rosap.ntl.bts.gov/view/dot/74098>
 - Spearheaded and designed a real-time data collection & analysis platform Pulse, consisting of an **ETL data pipeline running on Kubernetes to process millions of data points daily.** NSF, USDOT, and Adidas funded the project.

Founder, Construe Labs Private Ltd., India

Dec 2013 – Jul 2015

Implemented software projects along with managing infrastructure for more than 20 clients from around the world **generating a revenue of over \$500,000.** Notable clients included:

- **Upwork Global Inc., USA**
Automated digital marketing-related tasks for Facebook and Google Ads using API integrations, helping Upwork achieve highly optimized Cost Per Click and Cost Per Acquisition, **saving over \$100,000 monthly.**
- **Shopify Inc., Canada**
Leveraged unique knowledge of private Facebook Marketing API to develop a web application for automating and managing custom audiences, campaigns, and ads on Facebook, eliminating hours of manual work daily.

Software Engineering Intern, Microsoft Inc., India

May 2013 – Aug 2013

- Developed a suite of interactive data visualization tools for expenditure analysis to deliver insights for forecasting, which processed 750K data records monthly and improved data accessibility.

AWARDS

- **Third place in Zomato India Hackathon 2022** for making a one-touch food ordering app for Apple and Android watches.
- **Vision Award 2019, Enterprise Applied Research, Arizona State University (ASU)** for developing a patented algorithm.
- **ASU Sun Commitment Award 2018** for showcasing excellent leadership and mentorship skills.
- **First place in PayPal India Hackathon 2014** for developing a hands-free POS payment system.

PUBLICATIONS

- PULSE: Real-Time Monitoring and Analysis Framework Leveraging Twitter Data, **US-RSE23 Conference 2023.**
- Esq: Open-source Python library enabling GraphQL queries for Elasticsearch. <https://pypi.org/project/esq/>
- Real-Time Transportation Social Media Analytics Using Pulse (Pulse-T), **USDOT National Transportation Library 2021.**
- Analysis of sentiment on Facebook during 2016 USA presidential election, **IEEE/ACM 2016.**

PATENTS

- **Method and Apparatus for Designing Voter Precincts - US11763404B2, Granted Sept 2023**
Systems, Methods, and Apparatuses for Implementing a Geo-Demographic Zoning Optimization Engine.
<https://patents.google.com/patent/US11763404B2>