

PRANEETH REDDY ARIKATLA

Senior Software Engineer · Blockchain Compliance · DeFi · AI-Augmented Engineering

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PROFESSIONAL SUMMARY

Senior Software Engineer with **7+ years** architecting high-performance, full-stack distributed systems for blockchain compliance, DeFi protocols, and real-time data analytics. Proven impact at **Solidus Labs** delivering mission-critical monitoring frameworks for global financial institutions — including **NYDFS**-regulated entities and **Circle (USDC)**. Expert in scaling Python microservices on Kubernetes, orchestrating Snowflake and Databricks pipelines, and integrating Kafka-driven event streams. Daily power-user of AI-augmented engineering workflows — **Claude Code, Anthropic Claude API, agentic coding workflows, and spec-driven development** — consistently delivering **3x–5x productivity gains** on feature work, refactors, and incident response. Founder of three production products: **ByteHash, OrbitUPI, and Bharat Pay Index**.

CORE COMPETENCIES

AI & LLM Engineering: Claude (Opus, Sonnet, Haiku), Claude Code, Anthropic API, agentic workflows, tool use, prompt engineering, prompt caching, spec-driven development, AI-assisted code review, LLM evaluations, RAG, retrieval pipelines, embeddings, agentic test generation; familiar with Model Context Protocol (MCP) architecture

Languages: Python, JavaScript, TypeScript, SQL, Solidity, Java, PL/SQL

Backend & Distributed Systems: FastAPI, REST, WebSockets, microservices, Docker, Kubernetes, Helm, Kafka, Redis, Celery, asyncio, event-driven architectures

Data Engineering: Snowflake (Views, Streams, Tasks, Stored Procedures, Materialized Views), Databricks, Apache Spark, dbt, Airflow, ETL/ELT, data normalization, deduplication, Flipside Crypto data shares, time-series analytics

Blockchain & Web3: Web3.py, Ethers.js, Hardhat, Solidity, EVM, Solana, Polygon, BSC, Avalanche, IPFS, Chainlink, smart-contract testing, transaction tracing, CCTP, CCTP V2, Circle Gateway, USDC compliance, Forta feeds, TokenSniffer

Cloud & DevOps: AWS (EC2, S3, Lambda, RDS, IAM), GCP, Terraform, Helm, GitHub Actions, CI/CD, Kibana, Elasticsearch, Grafana, logz.io, observability

Frontend: React, Next.js, Tailwind CSS, TypeScript, Retool, jQuery, responsive design, PixiJS

Compliance & Domain: AML, KYC/KYT, transaction monitoring, regulator-grade reporting (NYDFS), sanctions screening, watchlist orchestration, scam-contract detection, audit-style analytics

PROFESSIONAL EXPERIENCE

DeFi Solutions Developer — **Solidus Labs** (*Remote*)

July 2022 – Present

- Architected and shipped an end-to-end **on-chain monitoring system for Circle (USDC)**, integrating **CCTP, CCTP V2, and Circle Gateway** transfer data into the Solidus monitoring platform — delivering real-time transparency across multi-chain stablecoin movements for NYDFS-class clients.
- Engineered **Solana ingestion pipelines** and downstream Snowflake / Databricks transformations powering compliance dashboards; enabled regulator-grade reports on stablecoin issuance, burn flows, and address-level activity.
- Built and shipped **multiple versions of automated watchlist orchestration pipelines on Databricks**, with **Docker-packaged Kubernetes workers** performing real-time data normalization, deduplication, and Forta-feed flagging across thousands of addresses per minute.
- Integrated multiple **Flipside Crypto data shares** into Snowflake, enabling cross-chain analytics joins and reducing time-to-insight for compliance analysts by ~60%.

- Designed **Snowflake pipelines** — views, streams, tasks, stored procedures, and materialized SQL jobs — for time-series analytics on wallet activity, sanctions screening, and high-risk address propagation.
- Scaled backend microservices in **Python** using FastAPI, asyncio, Kafka and Redis; deployed via Helm to Kubernetes with auto-scaling, blue/green rollouts, and observability through logz.io and Elasticsearch.
- Adopted **Claude Code and Claude API-driven AI workflows** for spec-driven development, automated code review, agentic refactors, and incident triage — consistently delivering **3x–5x productivity gains** on feature work and reducing time-to-merge on R&D tickets.
- Visualized system performance and operational metrics by building **Kibana and Retool dashboards**, enhancing tracking for webhooks, TokenSniffer analytics, and watchlist orchestration health.
- Led the **UI redesign of the TokenSniffer landing page** in React and Tailwind CSS, improving clarity for end users and partner integrations.
- **Tech stack:** Python, FastAPI, Docker, Kubernetes, Helm, Web3.py, Kafka, Redis, Snowflake, Databricks, Apache Spark, AWS, Elasticsearch, logz.io, Flipside Crypto, Forta, React, Tailwind, Claude Code.

Founder & Engineer — **ByteHash Labs** (*bytehashlabs.com*)

March 2022 – Present

- Founded and built **ByteHash**, a chain-agnostic developer tool for unit-testing and interacting with smart contracts directly from the browser across Ethereum, Polygon, BSC, and other EVM chains.
- Won **2nd place (\$10,000)** and **Best dApp built on Polygon (\$1,000)** at the web3con hackathon organized by Developer DAO.
- Designed verified-ABI ingestion via Etherscan, Polygonscan, and BSCScan APIs, plus an inline test harness with state inspection and gas profiling.
- **Tech stack:** React, jQuery, Ethers.js, Tailwind CSS, Etherscan APIs.

Founder & Engineer — **OrbitUPI** (*orbitupi.com*)

2024 – Present

- Founded and built **OrbitUPI**, a research-grade lens on India's payments ecosystem — live UPI volumes, app share, bank-level breakdowns, and consumer-flow visualisations for makers, founders, and operators.
- Architected the Next.js + TypeScript frontend, Postgres-backed data layer, and ingestion of NPCI / RBI public data with daily refresh and CDN-cached delivery.
- Heavy use of **Claude Code agentic workflows** for spec-driven feature design, data-schema normalization, and component generation — shipping the v1 product solo in weeks instead of months.
- **Tech stack:** Next.js, TypeScript, Tailwind CSS, PostgreSQL, NPCI / RBI feeds, Cloudflare.

Founder & Engineer — **Bharat Pay Index** (*bharatpayindex.com*)

2025 – Present

- Founded and built **Bharat Pay Index**, a daily-updated index of India's digital-payments health — UPI throughput, success rates, app concentration, and regulator signals distilled into a single readable dashboard.
- Designed multi-source ingestion (RBI, NPCI, public filings) normalised into a unified schema; built composable D3 charts with downloadable CSVs for analysts and weekly narrative explainers.
- Leveraged **Claude Code** for ingestion-pipeline scaffolding, ETL test generation, and rapid UI iteration.
- **Tech stack:** Next.js, D3, Python, Snowflake, Cloudflare, Claude Code.

Freelance Developer — **TokenSniffer** (*tokensniffer.com*)

November 2021 – July 2022

- Built tools for crypto-flow tracking and automated, audit-style analytics for scam-contract detection across EVM chains.
- **Tech stack:** JavaScript, Moralis API.

Freelance Developer — **Patchwork Kingdoms** (*patchwork-kingdoms.com*)

February 2021 – July 2022

- Contributed to an NFT project raising funds for UNICEF to bring schools online worldwide.

- **Tech stack:** JavaScript, React, Tailwind UI, Tailwind CSS, Covalent API.

Software Engineer — Ivy Software Development Services Pvt Ltd (Hyderabad)

October 2018 – November 2020

- Delivered **15+ front-end casino slot games** on schedule, collaborating closely with design and QA teams.
- Optimized game-asset loading and rendering for a **20% improvement in initial load time**.
- Implemented cross-browser compatibility and responsive design across diverse platforms and screen sizes.
- **Tech stack:** HTML, JavaScript, PixiJS, TweenMax, Howler.

DevOps Associate — Ivy Software Development Services Pvt Ltd (Hyderabad)

August 2017 – October 2018

- Developed internal reports, monitored production issues, and wrote scripts for incident resolution.
- Streamlined operational efficiency by deploying and managing **Kibana, Elasticsearch, and Grafana** for uptime and performance.
- **Tech stack:** Kibana, Elasticsearch, Grafana, Core Java, PL/SQL, SQL, JSP, HTML, CSS.

SELECTED PROJECTS

- **OrbitUPI** — orbitupi.com — Live UPI ecosystem lens; Next.js + TypeScript + PostgreSQL.
- **Bharat Pay Index** — bharatpayindex.com — Daily digital-payments health index for India; Next.js, D3, Python, Snowflake.
- **ByteHash** — bytehashlabs.com — Chain-agnostic smart-contract testing tool; web3con hackathon winner (\$11K total).
- **Circle (USDC) Monitoring @ Solidus** — On-chain monitoring with CCTP / CCTP V2 / Circle Gateway integration on Solana and Snowflake / Databricks pipelines.

EDUCATION

- **Alliance4Tech Exchange Program — CSE**, Technische Universität Berlin, Germany — October 2021 – August 2022.
- **MSc in Computer Science & Engineering**, Politecnico di Milano, Italy — September 2020 (discontinued).
- **B.Tech in Computer Science & Engineering**, Andhra University, India — August 2013 – March 2017.
- **Technology Entrepreneurship Program**, Indian School of Business (ISB), Hyderabad — July 2015 – June 2016.

ACHIEVEMENTS & ACTIVITIES

- **2nd place + Best dApp on Polygon**, web3con hackathon (Developer DAO) — \$11,000 total prize pool.
- **Plutus Pioneer Program, 2nd Cohort**, Cardano Foundation.
- **Founded and organized Techknow Club**, SIR CR Reddy College of Engineering.
- **Student Ambassador**, Technology Entrepreneurship Program, ISB Hyderabad.