

PAWNEET SINGH

Staff Engineer 2 & AI-Enabled Software Architect

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SUMMARY

Staff Engineer and Software Architect with close to **10 years of experience** in **software engineering, distributed systems, and AI-driven development**. Specialized in building **scalable microservices, modernizing legacy platforms, and integrating LLM-based automation and AIOps** to improve reliability and engineering velocity. Combines deep architectural design expertise with a **hands-on AI implementation mindset** to create intelligent, high-performance systems.

SKILLS

Programming

- Ruby on Rails
- Python
- Go (Beginner)
- SQL

Data & Infra

- Postgres / MySQL
- DynamoDB
- Redis / Elastic cache
- Kafka / SQS
- Elasticsearch

AI & Automation Tools

- Amazon Bedrock (Beginner)
- Claude / Copilot
- OpenAI API
- Agent & Automation tools

Frameworks & Utilities

- Docker
- Nginx
- Cloudflare
- Kubernetes
- Streamlit

AI Concepts

- Retrieval-Augmented Generation (RAG) (Beginner)
- Prompt Engineering
- AI Agents
- LLM Integration
- GenAI Automation

Cloud Platforms

- AWS
- GCP

EXPERIENCE

11/2021 – Present
Bengaluru

Staff Engineer 2
CoinDCX

AI & Automation Enablement

- Built an **AI-powered Confluence Assistant** using **Streamlit, Amazon Bedrock, Amazon Kendra, and Boto3 SDK**, enabling teams to query documentation in natural language via **RAG**.
- Drove **AI-first development adoption** through **Copilot and Claude**, improving developer efficiency and **reducing feature delivery time by ~25–30%**.
- Conducted **AIOps POC in PagerDuty**, implementing **LLM-based signal-to-noise filtering and auto-triage**, achieving **~40% reduction in alert fatigue** and faster incident response.
- Partnered with the Marketing team on **MarTech automation** using **OpenAI API and no-code tools (Make.com)** to automate **content creation and reporting workflows**, saving **~20+ hours/week** across teams.

System Architecture & Scalability

- Led decomposition of the monolith into microservices, designing and migrating 18.5M users, 950M wallet transactions, and 2.72B orders with zero data loss and downtime.
- Established standard frameworks for interoperability, including centralized Protobuf generation, Lua-based functions in Redis, and HTTP → gRPC transcoding in the API Gateway.
- Collaborated with Data Engineering to migrate 10B+ records across DynamoDB and Postgres, improving scalability and reliability of trading and analytics systems.

Performance & Reliability

- Optimized Futures Read APIs with 50 ms latency reduction and 12% lower CPU/memory usage through write-through caching and query refactoring.
- Designed rate-limiting and order-routing logic, improving order acceptance rate by 3% and supporting 16M+ users and \$100M+ daily trading volume.

02/2020 – 11/2021

Mumbai

Assistant Engineering Manager

Disney Star TV Network

- Led multiple ad-sales and pricing microservices, including Single Client Optimizer and Sirius, improving automation and visibility across campaign workflows.
- Developed Rails- and Golang-based rating services aggregating daily/weekly/monthly TVR data from KYLIN cubes, serving as the foundation for analytics and reporting.
- Drove platform migration from AWS to GCP, introduced Elasticsearch for faster queries, and led backend performance optimization efforts.

02/2016 – 01/2020

Delhi

Technical Lead

QuickCompany

- Designed AWS-based data-scraping architecture processing 85 M+ records/month using Scrapy.
- Implemented Elasticsearch-driven search across Companies, Trademarks, Patents, and Legal Data, improving data retrieval speed and reliability.
- Built a CRM system with event-driven email templates, lead-funnel tracking, and integrated communication (SMS, email, call logging).
- Delivered real-time report generation using WKHTMLTOPDF, improving accessibility and turnaround time for internal teams.

EDUCATION

2012 – 2016

Bachelor of Technology (B.Tech)

GGSIPU