

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