

PRERNA SHAW

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SUMMARY

Software Development Engineer with experience building scalable backend systems, research analytics platforms, and production-grade conversational AI agents. Skilled in Django, FastAPI, LangGraph multi-agent orchestration, voice AI pipelines, and Redis-based distributed architectures. Experienced integrating Scopus, OpenAlex, ORCID, Shopify APIs and deploying containerized microservices using Docker and Kubernetes.

TECHNICAL SKILLS

Languages	Python, C++, Kotlin, C
Frameworks	Django, FastAPI, LangGraph, LangChain, Jetpack Compose
AI Systems	LLM Agents, RAG Pipelines, Conversational AI, Prompt Engineering
Voice AI	Pipecat, Daily.co WebRTC, Azure Speech-to-Text, Cartesia TTS
Cloud / Infra	Docker, Kubernetes (Helm), Redis, PostgreSQL, MongoDB
Integrations	Shopify API, OpenAlex API, Scopus API, ORCID API
Observability	Langfuse, Weaviate
Tools	Git, Celery, Postman
Testing	Pytest, UnitTest

EXPERIENCE

Rezolve AI Jan 2026 – Present
Full Stack Developer *Hybrid*

- Built production-grade conversational commerce platform enabling retail and hospitality workflows via voice and chat interfaces
- Designed LangGraph-based multi-agent orchestration pipelines supporting booking, product discovery, cart workflows and checkout automation
- Implemented streaming voice pipeline using Daily.co WebRTC, Azure STT, Cartesia TTS and Pipecat framework
- Integrated Shopify APIs enabling conversational product recommendations and order workflows
- Designed Redis session memory layer maintaining persistent conversational context across agents
- Deployed containerised microservices using Docker Compose and Helm-based Kubernetes environments

Qtanea Solutions Apr 2025 – Dec 2025
Software Development Engineer *Remote*

- Built Django backend systems and FastAPI microservices for OpenScholar Research Information Management System (RIMS)
- Integrated Scopus, OpenAlex, and ORCID APIs for automated publication metadata enrichment
- Developed analytics dashboards supporting h-index, i10-index, SDG mapping and collaboration insights
- Implemented Redis caching, Celery workers and async pipelines improving API performance
- Developed automation services for LinkedIn/Twitter research visibility workflows

Qtanea Solutions Nov 2024 – Mar 2025
Backend Developer Intern *Remote*

- Contributed to backend development of institutional Research Information Management System (RIMS)
- Resolved production issues improving analytics workflow stability

Logitrix Mar 2024 – Nov 2024
Android Developer Intern *Remote*

- Developed reusable UI components using Jetpack Compose with MVC architecture

ACHIEVEMENTS

Oracle OCI Gen AI Certification Jul 2024
Oracle Certified Professional

- Generative AI concepts, transformer architectures and OCI-based AI deployment workflows

- Large Language Model training, fine-tuning and optimization techniques

PROJECTS

BrainCC Storefront

Jan 2026 – Present

- Built production-grade conversational commerce platform supporting retail workflows via voice and chat interfaces
- Designed multi-service architecture including routing gateway, authentication service, CDN layer, retail agent and hospitality booking agent
- Implemented real-time voice AI pipeline using Daily.co WebRTC, Azure Speech-to-Text, Cartesia TTS and LangGraph orchestration
- Integrated Shopify APIs enabling conversational product discovery, cart workflows and checkout automation
- Deployed containerised services using Docker Compose and Exposure to Kubernetes (Helm-based deployments)

OpenScholar RIMS

Apr 2025 – Dec 2025

- Built institutional research analytics platform supporting researcher, department and university-level insights
- Developed citation ingestion pipelines, SDG tagging workflows and collaboration analytics dashboards
- Implemented researcher public profile APIs and automated newsletter generation pipelines

Journal Quartile Checker

Jul 2025

- Built Scimago-powered journal ranking lookup service with ISSN search and quartile filtering
- Implemented modular API architecture with pagination and real-time suggestions

E-Commerce Backend System

Feb 2025

- Developed scalable Django REST APIs for authentication and order workflows
- Integrated Redis caching and Celery async processing pipelines
- Optimized PostgreSQL schema improving query efficiency

EDUCATION

Techno India University

2022 – 2026

B.Tech CSE (AI ML)

Kolkata

The Ballygunge Siksha Sadan School

2021

WBCHSE (Class XII)

Kolkata

Chowringhee High School

2019

WBBSE (Class X)

Kolkata