



AJAY PRAJAPAT

AI Research Scientist | Applied AI Research · LLM Evaluation · RAG Optimization ·
Production Research · 12+ Years



Scan for full CV
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EXECUTIVE SUMMARY

AI Research Scientist with 12+ years of software engineering and applied AI research. CEO and Co-founder of AppNeural. This CV is tailored for AI research roles requiring applied research, LLM evaluation, RAG optimization, and translating research into production systems.

Ajay bridges research and production. He conducts applied AI research, evaluates LLMs, optimizes RAG systems, and translates research findings into production-ready AI systems.

AT A GLANCE

12+ YEARS EXPERIENCE	49+ PROJECTS DELIVERED	3+ YEARS IN AI / GENAI	6-8 TEAM SIZE LED
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PROFESSIONAL MISSION

Translate AI research into production systems — with rigorous evaluation and measurable impact.

INDUSTRIES SERVED

AI-first products, research organizations, enterprise SaaS, and AI platform companies.

CORE COMPETENCIES

- Applied AI Research and Experimentation

LLM Evaluation, Benchmarking, and Comparison
- RAG Optimization and Retrieval Control

Multi-Agent System Research
- AI Safety, Alignment, and Guardrails

Research-to-Production Translation

TECHNOLOGY STACK

FRONTEND

Not a primary emphasis for this profile

BACKEND

Python

ARCHITECTURE

Not a primary emphasis for this profile

APIS

Not a primary emphasis for this profile

DEVOPS

Not a primary emphasis for this profile

AI / AUTOMATION

AI

GenAI

LLM

LangChain

RAG

OpenAI APIs

AI & GENAI EXPERTISE

3+ years of hands-on Agentic AI, LLM, and AI automation experience designing RAG pipelines, tool-calling workflows, retrieval systems, multi-agent orchestration, and AI-enabled product experiences. Proficient with LangChain, LangGraph, OpenAI APIs, Anthropic Claude, vector databases (FAISS, Pinecone, pgvector), MCP, evaluation systems, and AI governance frameworks.

Agentic AI

Multi-Agent Systems

RAG

LangChain

LangGraph

Tool Calling

OpenAI APIs

Anthropic Claude

Vector Search

MCP

Prompt Engineering

AI Governance

Evaluation Systems

LLM Benchmarking

ARCHITECTURE & SYSTEMS

System Design

API Design

Microservices

Distributed Systems

Event-Driven Architecture

Domain-Driven Design

CQRS

Multi-Tenant SaaS

Platform Engineering

API Gateway

Scalability

State Management

CLOUD & DELIVERY

AWS

Azure

GCP

Docker

Kubernetes

CI/CD

Terraform

Serverless

Edge Computing

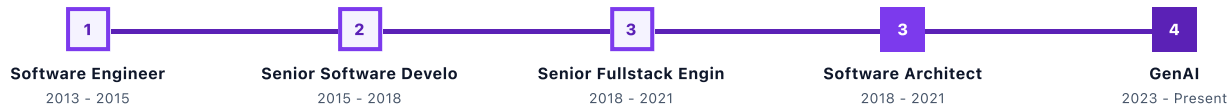
Observability

OpenTelemetry

Monitoring

Cost Optimization

CAREER TRAJECTORY



PROFESSIONAL EXPERIENCE

AI Agentic Architect CURRENT Jun 2026 — Present

MobileProgramming

Architecting agentic AI solutions for enterprise clients — multi-agent workflows, MCP integrations, RAG pipelines, and AI governance for production GenAI systems.

- Architecting multi-agent systems with LangChain/LangGraph, tool calling, and MCP-based integrations using Claude and OpenAI models for enterprise client engagements
- Designing RAG pipelines, vector retrieval, and evaluation workflows with production guardrails, observability, and audit trails
- Defining AI solution architecture, delivery standards, and technical direction across engagements while mentoring engineering teams on agentic patterns

Sr. Fullstack Engineer Mar 2022 — Feb 2026

Apple

Developed scalable Generative AI applications and optimized fullstack solutions using Angular, Spring Boot, Node.js, and Next.js, while implementing DevOps pipelines and cloud migrations.

- Spearheaded the development of scalable Generative AI applications, boosting productivity by 25%
- Optimized fullstack solutions using Angular, Spring Boot, Node.js, and Next.js for enhanced performance
- Implemented DevOps pipelines, reducing CI/CD time by 40% and streamlining development processes
- Collaborated on cloud migration projects, achieving an impressive 99.9% uptime for enterprise applications

Sr. Full Stack Engineer Oct 2021 — Mar 2022

Pratisthan Ventures Software Pvt. Ltd.

Built Node.js payment services with Redis, RabbitMQ, and MongoDB for transaction, settlement, and audit workflows in a regulated financial environment.

- Architected Node.js payment services with Redis, RabbitMQ, and MongoDB for transaction, settlement, and audit workflows
- Designed asynchronous recovery and failure-handling pipelines for settlement workflows, limiting transaction failure blast radius
- Built FX, audit, and calendar services with clear service boundaries for compliance-sensitive financial systems

Team Lead - Sr. Software Engineer (Full Stack NodeJS) Aug 2019 — Sep 2021

Smart Factory Solutions India Pvt Ltd

Led backend and telemetry architecture for real-time industrial monitoring systems, using NestJS APIs, WebSocket telemetry services, and Dockerized AWS workloads.

- Led backend and telemetry architecture for real-time industrial monitoring systems, improving visibility across machine telemetry flows
- Designed NestJS APIs, WebSocket telemetry services, and Dockerized AWS workloads for real-time monitoring systems
- Implemented monitoring, alerting, and logging workflows that improved incident response readiness

Senior Software Engineer (Full Stack NodeJS) Aug 2018 — Aug 2019

Neon TSS Pvt. Ltd.

Led Wi-Fi streaming platform delivery across firmware and cloud services, migrating from PHP/HTML to Node.js/NestJS and Angular-based applications.

- Led Wi-Fi streaming platform delivery across firmware and cloud services, coordinating backend, device, and frontend engineering
- Drove migration from PHP/HTML components to Node.js/NestJS and Angular-based applications
- Improved streaming stability and security through authentication, service hardening, and backend modernization

Technical Research Assistant

Dec 2016 — May 2018

Geetanjali Institute of Technical Studies, Udaipur

Worked with a US-based client on a Welding Learning Management System (LMS) and built backend and web prototypes for ERP, LMS, IoT, and content-delivery systems.

- Worked with a US-based client on a Welding Learning Management System (LMS), delivering training content and assessment workflows
- Built backend and web prototypes for ERP, LMS, IoT, and content-delivery systems across institutional platforms
- Implemented Node.js and Angular/React proof-of-concepts that accelerated research-led experimentation

Coordinator

Jan 2015 — Nov 2015

HDFC Bank

Coordinated Training Resource Line (TRL) team operations and cross-team scheduling at HDFC Bank, Udaipur.

- Coordinated Training Resource Line (TRL) team operations and cross-team scheduling
- Managed process scheduling and communication across training and operations teams

Software Engineer

May 2012 — Aug 2013

VHS Technology Private Limited

Developed and maintained a School Management Software system using .NET, C#, and SQL.

- Developed and maintained a School Management Software system using .NET modules for business workflows
- Implemented backend logic and SQL data integrations
- Supported bug fixes and incremental feature delivery for internal applications

MENTORSHIP, TRAINING & CSR

Weekend and volunteer engagements — conducted outside full-time employment hours.

AI Mentor & Trainer

WEEKEND · VOLUNTEER

Weekends (Sat–Sun) · Oct 2021 – Present

AppNeural

Weekend mentorship and training initiative — designing and delivering AI training programs in AI/ML, NLP, Computer Vision, and GenAI, with 500+ professionals trained through structured cohorts and workshops.

Technical Workshops & Knowledge Sharing

WEEKEND · VOLUNTEER

Ongoing · Weekends

Developer communities & institutions

System design, GenAI adoption, and fullstack engineering workshops for developer communities, college students, and early-career engineers — including free sessions as a community give-back (CSR) effort.

KEY ACHIEVEMENTS

- Architected and shipped multi-agent orchestration systems (LangGraph / CrewAI) powering production workflows, reducing manual processing time by 40%+. Signature examples include BizXOS (Research) and GenAIxperts.
- Built AI-native SaaS platforms with multi-tenant architecture, role-based access, and per-tenant AI configuration serving enterprise clients.
- Designed and deployed RAG pipelines, LLM evaluation harnesses, and AI guardrails that raised agent task success rates to 95%+ before production release. Added 3+ years of LLM, Agentic AI, AI automation, GenAI, Cloudflare Workers, serverless architecture, edge computing, secure sandboxing, and multi-tenant platform engineering experience across product, platform, and enablement contexts.
- Led end-to-end delivery of 7+ production AI products — from discovery and agent design through build, evaluation, and monitored launch.

SELECTED PROJECTS & CASE STUDIES

Enterprise Multi-Tenant SaaS Platform

Large-scale multi-tenant platform with microservices architecture, event-driven processing, and real-time analytics for enterprise clients.

Angular Node.js NestJS Kafka Redis PostgreSQL AWS Docker Kubernetes

Impact: Serves 50K+ daily active users across 15+ modules with 99.9% uptime. Reduced infrastructure costs by 40% through containerization and auto-scaling.

Industrial IoT Monitoring & Analytics

Real-time monitoring dashboard for industrial IoT sensors with streaming data processing, alerting, and predictive maintenance capabilities.

React WebSockets Node.js InfluxDB Grafana AWS IoT Docker MQTT

Impact: Monitors 1,000+ sensors in real-time with sub-second latency. Predictive alerts reduced equipment downtime by 30% and maintenance costs by 25%.

Logistics Platform

Enterprise logistics platform for shipment workflows, tracking, and operations visibility with distributed, event-driven services and customer-facing status journeys.

Angular React Next.js Spring Boot Node.js TypeScript PostgreSQL Redis Kafka Kubernetes

Impact: Improved tracking accuracy and shipment-event throughput through Kafka-driven processing, Redis caching, and containerized deployment across logistics services.

AWS Infrastructure Management

Cloud infrastructure management platform for secure provisioning, governance, environment operations, and cloud delivery across AWS-first environments.

Angular Vue.js/Nuxt.js Spring Boot Node.js PostgreSQL AWS Cloudflare Docker Kubernetes

Impact: Automated infrastructure provisioning and governance workflows, improving release reliability and reducing manual deployment effort across environments.

Banking Payment Processing System

Event-driven payment processing platform with FX, holiday-calendar, and audit modules for auditable, resilient financial transaction workflows.

Node.js TypeScript MongoDB Redis RabbitMQ Node-RED OE-Cloud

Impact: Improved transaction traceability and reliability for high-volume payment operations through auditable event pipelines and resilient recovery workflows.

User-Admin Management System

Enterprise admin and user management platform with fine-grained permissions, governance, and multi-tenant readiness.

Node.js NestJS TypeScript MongoDB Angular Material

Impact: Delivered RBAC and ABAC enforcement side by side, establishing a stronger foundation for secure user lifecycle management across enterprise workflows.

Dynamic Configurable Server

Configuration-driven backend platform with RBAC/ABAC enforcement and feature toggles for controlled operational flexibility.

Node.js NestJS TypeScript MongoDB RBAC ABAC

Impact: Reduced turnaround for enterprise change requests by enabling permissioned configuration updates without requiring backend redeploys.

Backendless REST & WebSocket Platform

Unified REST and WebSocket platform with reusable backend building blocks and real-time communication support for multiple clients.

Node.js NestJS TypeScript MongoDB JWT WebSockets

Impact: Reduced repeated backend setup work by turning common API and real-time concerns into reusable platform components across client implementations.

Packaging Live Data-Table & Charts Dashboard

Configurable live data-table and charts dashboard for packaging machine monitoring with threshold and machine-status modes.

Angular Material Angular Charts REST APIs

Impact: Improved on-floor response times with configurable live visibility and an auto-deployment script that streamlined releases to monitoring stations.

Packaging Live Simulator Dashboard

Live graphical line-view simulator for real-time packaging machine monitoring with SVG-based visualization.

Angular Material SVG REST APIs

Impact: Improved operator visibility into production issues through real-time error detection and highlighting for conveyor and filler machine faults.

Educational App (LMS)

Cross-platform LMS mobile app for public and private institutions with social learning activity.

Flutter Node.js Firebase

Impact: Delivered a public/private LMS with Firebase-backed auth and real-time sync, increasing learner engagement through social learning features.

Video Streaming App & Wi-Fi Device

Wi-Fi streaming hardware device with companion cloud backends, shipped across two hardware/software iterations (V1 and V2).

Raspberry Pi AngularJS Angular 7+ Node.js MySQL HLS

Impact: Shipped a production-ready streaming device across two iterations, including image burning, device packaging, branding, and versioned documentation.

AIR-PRO IoT Air Quality Monitoring

Air quality monitoring system with Raspberry Pi-connected sensors and a live dashboard.

Node.js Raspberry Pi REST APIs

Impact: Enabled real-time air quality visibility with threshold-based monitoring and alerts for abnormal readings.

NPTEL Video Content Delivery

Secure NPTEL video content delivery for students with authenticated access and usage tracking.

PHP MySQL

Impact: Delivered stable, authenticated video access with usage monitoring and faculty-level reporting.

Welding LMS (US Client)

Web LMS with an advanced quiz engine and admin CMS for a US-based welding training client.

PHP MySQL Bootstrap Materialize

Impact: Delivered a quiz engine supporting image-based, boolean, and multi-selection question types with learner reporting.

Campus ERP with Dynamic Query Engine

JSON-based dynamic ERP backend generating SQL queries and business logic from configuration.

Node.js MySQL

Impact: Enabled feature changes through JSON configuration without redeloys, reducing repeated engineering effort for ERP change requests.

Job Portal Web Application

Two-sided job portal for candidates and recruiters with secure registration and moderation workflows.

PHP MySQL

Impact: Delivered a complete RBAC-secured job portal UI with validation and moderation for candidate and recruiter workflows.

Campus Management ERP System

Campus ERP spanning fees, exams, academics, and admin with modular, optimized components.

VB.NET SQL Server

Impact: Delivered admin dashboards and consistency across departments through modular VB.NET + SQL Server components.

School Management ERP System

Desktop ERP for student records, attendance, exams, and staff data.

VB.NET SQL Server

Impact: Delivered result calculation, attendance tracking, and reporting with validation across normalized, role-based modules.

CI/CD & Deployment Automation

Automated build, test, deployment, and release governance pipelines across distributed services.

Jenkins AWS CodeDeploy GitLab CI Docker

Impact: Reduced deployment errors, manual handoffs, and release friction by replacing ad hoc release steps with consistent pipelines.

EDUCATION

MCA

Master of Computer Applications

ISBM University, Jun 2025 — May 2027

BCA

Bachelor of Computer Applications

Bhupal Nobles' University, Udaipur, 2010 — 2012

CERTIFICATIONS

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Triplebyte Certified

Triplebyte

SKILLS PROFICIENCY

Angular

Expert

React

Expert

Vue.js

Expert

Node.js

Expert

TypeScript

Expert

AWS

Advanced

Docker

Advanced

PostgreSQL

Advanced

PROFESSIONAL DEVELOPMENT

- Active technical mentor and trainer — coached 50+ engineers across fullstack, architecture, and AI disciplines
- Published thought leadership on agentic AI, platform architecture, and engineering leadership
- Regular speaker and workshop facilitator on AI-native development and system design
- Continuous learner — actively exploring multi-agent systems, MCP protocols, and AI governance frameworks

ATS KEYWORDS

LLM

Agentic AI

3+ Years Agentic AI Experience

AI

AI Automation

GenAI

RAG

OpenAI APIs

LangChain

LangGraph

Tool Calling

AI Research Scientist

LLM Evaluation

RAG Optimization

Applied Research

Production Research

Applied AI Research and Experimentation

LLM Evaluation, Benchmarking, and Comparison

RAG Optimization and Retrieval Control

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AI Safety, Alignment, and Guardrails

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Python

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