

# SPARSH NAGPAL

Seattle, WA, USA | P: +1 425-518-4613 | [Osparsh2@gmail.com](mailto:Osparsh2@gmail.com) | [linkedin.com/in/sparshnagpal](https://www.linkedin.com/in/sparshnagpal) | [Portfolio](#) | [Github](#)

AI Product Manager with experience across the full product lifecycle - from ideation and user research to deployment and adoption at both fast-moving startups and Fortune 500 scale. Built and shipped LLM, RAG, and generative AI products serving 3.5M+ DAUs and \$1Billion+ in business value. Combines deep technical fluency with a sharp focus on user trust, reliability, and measurable outcomes.

## WORK EXPERIENCE

**The Boeing Company** | Data Scientist 2 - AI Products | Seattle, WA, USA Jun 2024 – Present

- **Agentic Text2SQL RAG Chatbot Platform:** Owned roadmap, UI/UX design, and cohort-based feedback loops for a multi-agent copilot built on LangGraph/LangChain with DeepAgents - enabling conversational Tableau queries, SQL-to-visualization generation, and document ingestion for contextual analysis. Drove 100+ analyst adoptions across 4 business units, reduced insight turnaround 4 min → <30s, cut dashboard effort by 90%.
- **Sales Order Cancellation Prevention:** Identified \$1B+ in at-risk orders by owning the full ML stack, personally engineered 60+ features, fine-tuned an XGBoost classifier, built production APIs, and layered LLM-based evaluation for explainability. Designed automated part substitution workflow that reduced manual investigation and improved mitigation speed.
- **GraphRAG for Contract Intelligence:** Directed OCR model selection (Tesseract, LayoutLM, DocTron) and delivered LLM pipeline for financial clause extraction and compliance review. Improving accuracy 25%, cutting manual review time 30%.
- **Promoted:** Full-time on performance; won Boeing Hackathon 2024 by replacing a regex-based NCR records extraction system with an LLM pipeline by doubling extraction accuracy over the baseline; named Top 100 Intern in the U.S. by WayUp/Yello.

**Flavor AI** | AI Engineer - Product Development (contract) | Remote, India Jun 2023 – Sep 2023

- **Product Roadmap & Market Research:** Collaborated directly with founders to define the MVP roadmap for a GenAI ad-creation platform. Conducted competitor benchmarking, client interviews, and market research to drive feature prioritization.
- **Image Generation Rebuild:** Rebuilt their diffusion-model pipeline & doubled generation quality using LoRA, ControlNets, and prompt engineering.

**Appyhigh Technology** | Machine Learning Engineer - Gen AI and Content Products | Remote, India Mar 2022 – Jun 2023

- **AI Avatar App:** Built and launched Face Avatar GenAI app reaching 1k+ DAUs within one month at \$12 ARPU, validating early product-market fit.
- **Diffusion AI Editor (phot.ai, 1M+ users):** Managed roadmap for AI photo editing platform, prioritized background editor, object removal, avatar builder with cross-functional engineering coordination.
- **Content Feed & Recommender SDK:** Owned personalization SDK powering 15+ apps; drove roadmap, ran A/B tests that grew DAUs from 2M → 3.5M (+30%). Built 25+ dashboards across 50M+ documents to guide product decisions.

**Friends for Inclusion** | ML Intern - Founder's office | Remote, India Mar 2021 – Mar 2022

- **Product R&D with Founder:** Co-designed India's first Text-to-ISL translation application; achieved 97% comprehension accuracy in user testing.
- **Backend & Deployment:** Led model deployment via AWS Lambda, DynamoDB, Docker - reduced real-time response latency by 60%.
- **Research Publication:** Published at Microsoft-backed IIIT-B Empower Conference, top tech-accessibility venue in India.

## PROJECTS / VOLUNTEER

**LLM Traffic & Brand Visibility Monitoring System** (Personal Research Project) - [link](#) (code in Pvt Repo) Oct 2025 – Jan 2026

- Built GeniusAI, an enterprise-grade AI visibility SaaS; proprietary Visibility Score combining AEO, GEO, and brand metrics across AI tools like ChatGPT and Gemini; MCP kit orchestrating 30+ SEO APIs via LangGraph multi-agent architecture with human-in-the-loop middleware; full-stack solo execution from Figma → Cursor → Vercel.

**ReRout - Open-Source LLM Router** (Personal Research Project) [link](#) | 26 ★ 6 forks Oct 2025 – Dec 2025

- Production-grade microservices platform for intelligent LLM routing, ONNX-based intent/complexity classification via DistilBERT, PII guardrails (SSNs, credit cards, financial identifiers), A/B testing, Prometheus/Grafana observability, OpenAI-compatible drop-in API. Reduces inference costs 40–60%. Open-sourced with active external contributors.

**Resume Intelligence Platform** (Volunteer - corporate training firm) May 2025 – Oct 2025

- Built resume intelligence tool parsing 2,000+ resumes with Gemini LLM and Supabase VectorDB, using Advanced RAG techniques, hybrid semantic/rule-based matching and Google Drive API integration at near-zero infra cost.

**Memorable-ai** (Personal Research Project) [link](#) | 7 ★ Dec 2025 – Present\*

- Developing a 2-line persistent LLM memory library using Mem0 + interceptor architecture (inspired by mem0 and memori)

## EDUCATION

**University of Washington** Seattle, WA, USA  
Master of Science in Data Science 2023 - 2025

**University of Mumbai** Mumbai, Maharashtra, India  
Bachelor of Engineering in Computer Engineering 2018 - 2022

## SKILLS

**Product & Prototyping:** Cursor / V0 / Claude Code · Supabase/ Postgres with pgvector / ChromaDB · Figma / Stitch · A/B Testing · User Research & Interviews · Product Requirements Document (PRD) writing · Agile/Scrum · GTM Collaboration · Stakeholder Alignment

**AI & ML:** Open/Closed LLMs · RAG & Multi-Agent Systems · Diffusion Models · NLP · Computer Vision · RecSys · Prompt Engineering

**Programming & Data:** Python (Advanced) · SQL · JavaScript · HTML/CSS · Tableau · Statistical Analysis · Spark · NoSQL · VectorDB · Neo4j

**Frameworks & Tooling:** Ollama · LangChain/LangGraph · FastAPI · PyTorch · TensorFlow · Docker · MCP Tooling · Git · SEO/GEO