SHREY CHOPRA

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SUMMARY

Senior AI Engineer with 5+ years building production-grade **agentic systems**, **generative-AI products**, and **ML infrastructure**. End-to-end ownership from architecture to delivery; expertise in **multi-agent orchestration**, **RAG (pgvector)**, and **LLM-agnostic services** on AWS/Docker—driving **multi-million-dollar enterprise outcomes** for Fortune 500 and D2C clients.

EXPERIENCE

Avataar   Bengaluru, India

Tech Lead   *July 2023 – Present*

- **Agentic AI Platform (ongoing):** Building enterprise workflow automation via **multi-agent coordination** that converts PDFs, SOPs, and prompts into executable plans. *How:* two-tier memory with **RAG (PostgreSQL + pgvector)**, conditional-routing **orchestrator**, and **LLM-agnostic** integration with multi-tenancy and federated memory. *Impact:* piloted with **healthcare** and **insurance** clients.
- **Velocity**: *What:* one-click product/marketing videos from a single PDP URL in **<7 minutes**. *How:* multi-modal LLMs, rule-based guardrails, timeline synthesis. *Impact:* adopted by D2C & Fortune 500; contributed **$3M+** in enterprise deals.
- **Avataar Creator**: *What:* immersive 3D content studio used by **Lowe's** and **HP**. *How:* led system architecture across web/iOS/Android/SDKs; drove delivery & stakeholder alignment. *Impact:* reduced **3D asset cycle** from **7 days** to **<1 hour**.
- **Hiring & leadership:** Drove interview loops and mentoring to build a high-performance engineering team.

Software Engineer II   *October 2022 – July 2023*

- **Incarnate (iOS):** *What:* capture-to-3D mobile pipeline. *How:* background uploads, capture history, catalog selection, **3D viewer**, and UX revamp. *Impact:* cut 3D asset creation time from **7 days** to **<1 hour**; enabled pilot with **Crate & Barrel**.
- **Avataar Apollo CMS:** Built CMS for capture and cataloging; backbone for Creator's 3D content ops.

Research Engineer   *February 2021 – October 2022*

- **SNeRG optimization:** improved baking throughput by **2x**; deployed 2D→3D models on AWS ECS with auto-scaling.
- **Incarnate MVP:** authored first iOS MVP and cloud capture pipeline; established foundations later productionized with retail pilots.
- **AR rendering:** designed mobile-optimized renderer for implicit surfaces (AR/vision).

Info Edge (Naukri.com)   Noida, India

Data Science Intern   *February 2020 – April 2020*

- **Resume headline generation:** Bi-LSTM seq2seq with attention; enhanced quality using VAE and pointer-generator.

Sapient Razorfish   Gurgaon, India

Backend Developer   *December 2017 – August 2018*

- **Customer service portal:** Built backend with real-time notifications and reservation integration.

PROJECTS

Apple Vision Pro Showcase

- Prototyped an **AI-driven spatial demo** (intent → scene orchestration) for executive demos.

Human-Pose Based Gait Recognition (Plaksha TLF)

- OpenPose keypoints + **LSTM/GRU/Bi-LSTM**; explored Siamese one-shot for biometric authentication.

Technical Skills

Programming: Python, JavaScript/TypeScript, Swift, Kotlin
AI/ML: PyTorch, CoreML, Diffusion, OpenPose, TensorFlow, scikit-learn
Cloud/Infra: AWS (ECS, ECR, S3, SQS, Lambda, EC2, Auto-Scaling), Docker
Data: PostgreSQL, pgvector, MongoDB, Vector DBs (FAISS/Pinecone)
Frameworks/UI: FastAPI, React, SwiftUI, ARKit, SceneKit, RealityKit, Three.js, WebGL
Selected Tools (Agentic): LangChain, LangGraph, LlamaIndex, OpenAI SDK, Anthropic SDK
Specializations: LLMs, RAG Pipelines, Multi-Agent Systems, Computer Vision, 3D Rendering, iOS Apps

Education

Plaksha Tech Leaders Fellowship   2020
Post-Graduate Program

B.Tech in Computer Science   2017
IIIT – Delhi

Patents

Real-time Rendering of Image Content Generated using Implicit Rendering