Arnav Panigrahi

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Professional Summary

- Full-stack software engineer with 2.5+ years of experience building production web platforms, distributed APIs, and automation systems across healthcare, logistics, and enterprise software domains.
- Experienced designing scalable backend services and cloud-native systems using Python, TypeScript, FastAPI, Node.js, and Google Cloud; optimized infrastructure reducing operational costs by 90% while improving system latency and reliability.

Experience

Software Developer, AllCheer – California, USA Mar 2025 – Present

- Built a LangChain agent-driven ROI automation workflow orchestrating stakeholder authorization, compliance validation, and document distribution, enforcing multi-party approval logic and reducing manual processing time by 60%.
- Engineered a containerized FastAPI microservice that emulates authenticated user sessions against RethinkBH endpoints to fetch records directly, bypassing public APIs with 24–48 hour delays and enabling near real-time retrieval.
- Built a React + TypeScript internal analytics dashboard integrating OpenAI APIs and NLP pipelines to extract structured entities from unstructured therapist notes, improving clinical scheduling insights and achieving 92% extraction accuracy.

Software Developer Intern, AllCheer – California, USA Jun 2024 – Dec 2024

- Developed a Python-based logistics system integrating Google Maps Distance Matrix and Routing APIs to compute multi-stop schedules for a 20-provider workforce (1500 routes/month), exposing route computation via REST APIs.
- Designed REST API schemas and backend integration layers enabling the logistics engine to interact with internal databases and scheduling systems while validating workflow automation prototypes through rapid R&D using Make.com.

Junior Software Developer, Pinnacle Consulting LLC – Bhubaneswar, India Jan 2022 – Aug 2023

- Integrated ArcGIS Online geospatial services into Angular and .NET enterprise dashboards for a $75M utility provider, enabling real-time visualization of infrastructure assets and reducing operational oversight errors by 30%.
- Delivered 3 ERP platforms using Node.js, Angular, and SQL Server, implementing JWT-based RBAC, optimized relational queries, and modular service architecture to automate invoicing and reporting workflows, improving efficiency by 25%.

Technical Skills

Languages: Python, TypeScript, JavaScript, SQL, C#, Bash

Backend: FastAPI, Node.js (Express), REST APIs, WebSockets, Microservices, Authentication (JWT/OAuth)

Frontend: React, SvelteKit, Angular, TypeScript, TailwindCSS, Vite

Cloud & DevOps: Google Cloud (Cloud Run, IAM), AWS, Docker, CI/CD pipelines, Serverless architectures

Databases: PostgreSQL, SQL Server, MongoDB, Redis, Pinecone (Vector DB)

AI Systems: LangChain, LangGraph, Retrieval-Augmented Generation (RAG), HuggingFace, PyTorch, NLP pipelines

Projects

LLM Abliteration & Interpretability (LiquidAI LFM2.5) | PyTorch, Hugging Face, NumPy 2025

- Built an interpretability pipeline analyzing transformer internal activations using PyTorch hooks and residual stream analysis, implementing weight orthogonalization methods to identify refusal directions in the LFM2.5-1.2B architecture.
- Developed inference-time interventions to reduce model refusals for educational prompts, adapting research techniques to a custom architecture through precise manipulation of internal feature representations.

bedtime.ai – Multi-Modal AI Storytelling Platform | FastAPI, React, Phi-3, EfficientNet, TTS 2025

- Architected a full-stack multi-modal platform combining computer vision, LLM text generation, and speech synthesis, processing image inputs with EfficientNet embeddings and generating narrative scripts using a Phi-3 language model.
- Implemented backend inference services with FastAPI and asynchronous processing pipelines to coordinate vision models, LLM generation, and Coqui TTS voice synthesis into a unified storytelling workflow.

Nier Archive (Real-Time Site) | SvelteKit 5, TypeScript, Cloudflare Workers, Durable Objects 2026

- Engineered a globally distributed web application using SvelteKit and Cloudflare Workers, implementing stateful WebSocket sessions via Durable Objects to enable real-time cursor presence across clients.
- Streamlined content delivery by building a custom Vite plugin for build-time markdown parsing and deploying the

application globally using Cloudflare Pages and KV storage for edge-optimized performance.

Education

University of California, Riverside Sep 2023 – Mar 2025

MS in Computer Science

Relevant Coursework: Deep Learning, Data Structures and Algorithms, Computer Architecture, Operating Systems

Vellore Institute of Technology, Amaravati Jul 2018 – Mar 2022

BTech in Computer Science and Engineering