

BHAVESH NARESHKUMAR PABNANI

Manufacturing Science & Engineering, IIT Kharagpur

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EDUCATION

B.Tech, Manufacturing Science & Engineering , IIT Kharagpur	2026 CGPA: 8.5/10
HSC , B.R. Ambedkar Jr. College	2022 89.84%
ICSE , Carmel Academy ICSE, Datala	2020 94%

INTERNSHIPS

SDE Intern | Amazon May 2025 - Jul 2025

- Designed **polymorphic search API** with **Guice ExecutorService**, 20-thread concurrency, and **DynamoDB**, cutting latency 4s to 843ms
- Formulated **HLD/LLD** for **SpEL construct unification** using eager loading, reducing onboarding time by 50% across 14 constructs
- Integrated **AI Rule Assistant** using **Amazon Bedrock Prompt Router**, Claude 3.7 Sonnet reasoning, and Llama Maverick 4 workflows
- Programmed **Bindle Lock Access Guard** with Harmony API authorization and delivered **ACS** runtime config using **DIP/ThreadLocal**

Founding Member | FinAIance | Stealth Startup Sep 2025 - Present

- Designed **LangGraph dashboard agent** with **SSE streaming**, Docker-isolated sandbox execution, and validated Ant Design outputs
- Implemented **LightRAG** with Qdrant vector search, Neo4j knowledge graph, Redis caching, BGE reranking, and tenant isolation
- Engineered **DigitalOcean CI/CD** with GitHub Actions, Nginx Proxy Manager, Infisical secrets, Supabase RLS, and ClickHouse analytics
- Built **Meridian**, a Git-based, memory-backed multi-agent orchestration harness with sub-agent delegation and contextual skills execution

Technical Lead | Voice Eval Technologies Pvt. Ltd Dec 2025 - Feb 2026

- Engineered **Sarvam AI** and **ElevenLabs** voice-evaluation workflow for persona-based test generation, simulation, and scoring loops
- Deployed **multi-tenant SaaS** backend with Tenant-ID MongoDB routing, Motor, Beanie, and modular 4-engine simulation pipeline
- Integrated voice simulation using **Epicode SIP**, LiveKit WebRTC bridge, TTS pre-generation, deferred STT, and noise injection

Backend Intern | Mansio.ai Aug 2025 - Sep 2025

- Constructed **MITRA voice agent** using VAPI DAG, node navigation, Deepgram STT, and ElevenLabs TTS for property discovery calls
- Architected **WhatsApp bot** using FastAPI, Redis, Gupshup webhooks, and GPT-4o to process 500+ weekly listings and intake flows
- Innovated real-time matchmaking using **ELO rating**, Redis, and SQLAlchemy to process 1,000+ flatmate/property matches daily

Data Analyst Intern | Data Analytics Center | Sabre Corporation May 2024 - Jul 2024

- Reduced non-stop share prediction **MSE** from 0.0096 to 0.0046 using **H2O.ai Stacked Ensemble AutoML** models for aviation demand
- Utilized **NetworkX** for graph feature engineering and clustering-coefficient computation across 9,928 aviation markets and routes
- Built **Vectora** multi-tenant analytics on AWS EC2, **Aurora**, and Redis, serving 384K+ OD records via tenant-scoped route heatmaps

PROJECTS

Humungousaur | Proactive Personal Cognitive Agent | Open Source | GitHub Link

- Architected **proactive cognitive agent** converting desktop, browser, file, voice, app, and connector events into autonomous stimuli
- Built **macOS desktop app** in Swift and SwiftUI with daemon-backed chat, stimuli, tools, approvals, channels, and voice wakeup
- Developed **Windows desktop app** in WinUI 3 and .NET, exposing local agent runtime through cross-platform execution controls
- Packaged releases via **macOS PKG/ZIP**, Windows EXE/ZIP, Homebrew, Scoop, Chocolatey, WinGet manifests, and CI/CD scripts
- Developed selector-based browser-use with **Playwright**, CSS selectors, DOM snapshots, locators, and mutation guardrails for agents

Finnway | Financial Intelligence Platform and World Data Model | InterIIT Tech Meet 14.0 | High Prep | Pathway

- Designed **AWS CDK** infrastructure with Lambda, EC2 CI/CD, Redis LRU caching, S3 artifacts, Modal GPU, and DynamoDB stack
- Implemented live **2.7M+ document World Data Model** using Kafka pipelines, backpressure control, and CQRS-lite for equity analytics
- Developed distributed search with **LLM query parsing**, PostgreSQL federation, JMESPath filtering, and Redis-backed caching
- Built retrieval using **Tantivy BM25**, Usearch KNN, FAISS indexing, and Qwen3 reranker over 2.7M+ live finance documents at scale

ReefChat | Multi-Agent Retrieval System | InterIIT Tech Meet 13.0 | High Prep | Pathway | Blog

- Built **MORAY**, a DAG-based multi-agent orchestration system enabling parallel execution, replanning, and LLM Compiler tool calls
- Deployed scalable **FastAPI** backend with Docker, AWS, and Modal hosting for Stella 1.5B contextual embedding model services
- Crafted **ReefChat** full-stack chatbot using Next.js SSR/SSG, OAuth 2.0, PDF.js viewer, lazy loading, chat memory, and navigation

SKILLS AND EXPERTISE

Programming	Python C++ C C# SQL Java HTML CSS JavaScript TypeScript Swift TeX React .NET
Frameworks	Django FastAPI Guice PyTorch Docker MongoDB Redis AWS Aurora LangGraph Node Kafka
Coursework	Programming & Data Structures Probability & Statistics Linear Algebra, Numerical & Complex Analysis

POSITIONS

- Led **Kharagpur Data Analytics Group** as Executive Head, Technology Students' Gymkhana, IIT Kharagpur, during 2024 - 2025
- Directed **AI and Metaverse** initiatives at KodeinKGP, hosting National Science Week Hackathon 2024 and authoring 3 articles
- Organized 4 national events as Core Team Member at **Coding Ninjas 10X Club** with 20k+ members and CXO Cafe initiatives nationwide

ACHIEVEMENTS

- Secured **3rd position** in Fin-A-Lytics 2023, National Finance and Analytics Case Challenge, among 100 participants across India
- Earned **1st place** as team leader at Innovate4Swadeshi Hackathon 2024 among 50 finalists across India in national technology finals
- Achieved **LeetCode 1593** and **Codeforces Expert 1758** ratings with 658 problems solved under BodaciousLord007 programming handle