

Kunal Kumar

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EDUCATION

Year	Degree	Institute
Aug 2027	Bachelor's in Computer Science	Birla Institute of Technology and Science, Pilani

EXPERIENCE

Emergent (YC S24) | Frontend Engineering Intern June 2026 – Present

- Working on frontend systems, product experiences, and engineering workflows in a fast-paced AI startup environment.
- Collaborating with engineers and founders on production software development and user-facing features.

Ostrius AI | SWE Intern April - June 2026

- Engineered a full-stack application with complete ownership of frontend, backend, and system design, delivering a scalable and responsive user experience.
- Implemented robust authentication and verification mechanisms (secure login flows, validation) to ensure application security and reliability.

Hack Club | Growth & Ops Lead Nov 2024 – Mar 2026

- Managed regional technical infrastructure for flagship initiatives including **Campfire**, **Daydream**, and **CodeDay Bengaluru**.
- Directed operational logistics to ensure seamless engagement for 500+ participants across the regional satellite technical network.

Teaching Assistant | Data Structures & Algorithms (DSA) May – June 2026

- Mentored 50+ students in algorithmic problem-solving and structured thinking through guided technical sessions.
- Led doubt-resolution and concept clarification sessions, improving students' ability to approach complex computational problems.

TECHNICAL PROJECTS

Recall | Python, Qt, Local Daemon APIs, Semantic Search 2026

- Built Recall.me, a local-first continuity operating system that reconstructs interrupted workflows and resurfaces unfinished work through browser, file, and development activity signals.
- Engineered an end-to-end memory pipeline spanning browser extension ingestion, event storage, recovery scoring, investigation ranking, and semantic search across browser activity, file interactions, searches, and workflow traces.
- Designed and implemented a production-style launcher and recovery interface in Python/Qt with live search, resume workflows, preview surfaces, and local daemon APIs powering real-time continuity retrieval.

Deterministic Support Triage Agent | Python, LlamaIndex, BM25, Prompt Defense 2026

- Engineered a deterministic AI orchestration system for autonomous support triage with explicit policy enforcement, safe tool gating, and stateful multi-turn reasoning under adversarial conditions.
- Developed a hybrid retrieval-consensus architecture combining BM25, TF-IDF, reranking, and grounding diagnostics to minimize hallucinations and improve citation reliability.
- Implemented multilingual prompt-injection mitigation, retrieval-poisoning defense, PII redaction, calibrated confidence scoring, and deterministic evaluation pipelines with 132/132 passing tests and reproducible outputs.

Watershed Negotiation Intelligence Platform | Python, RL, FastAPI, TRL 2026

- Designed a multi-agent reinforcement learning environment simulating real-world resource allocation under constraints using live environmental data.
- Modeled strategic agent behavior with trust dynamics, coalition formation, and reward-driven negotiation mechanisms.
- Trained a language model using **GRPO** across large-scale simulations (100k+ episodes) to study emergent behavior under competing incentives.

ACHIEVEMENTS

- Activate AI Fellow:** Selected as **1 of 15 fellows** from **500+ applicants** for Activate's flagship AI systems and applied machine learning fellowship focused on agentic AI, retrieval systems, and production-scale AI engineering.
- Apple Developer Initiative Participant:** Selected for Apple's developer-focused initiative emphasizing product engineering, ecosystem development, and technical innovation.
- Selected Delegate:** **Harvard Project for Asian and International Relations (HPAIR) 2026, Harvard University.**
- Leadership & Community:** Core Member, Open Source Club; Head of Events & Immersions, Student Body; led technical workshops, mentorship initiatives, and student engineering programs.

TECHNICAL SKILLS

Languages : Python, TypeScript, JavaScript, Java, SQL, C++, Go

AI/ML Systems : LLM Orchestration, RAG Systems, Retrieval Pipelines, Stateful AI systems, Reinforcement Learning

Frameworks & Libraries : FastAPI, Node.js, React, Pydantic, FAISS, LlamaIndex, PyTorch

Infrastructure & Tools : Docker, Kubernetes, AWS, Linux, Git/GitHub, Cloudflare