Hitesh Narayana

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EDUCATION

University of Southern California — Los Angeles, CA
Master of Science in Computer Science (MSCS) — *December 2025*
GPA: 3.85/4.0. Courses: Algorithms, Database Systems, Software Architecture, Information Retrieval, Machine Learning, Deep Learning

Visvesvaraya Technological University — Bengaluru, India
Bachelor of Engineering in Information Science and Engineering — *July 2023*
GPA: 9.0/10.0. Courses: Data Structures, Computer Networks, Artificial Intelligence, Big Data, Database Systems

EXPERIENCE

Easley-Dunn Productions — Torrance, CA
Software Engineer — *April 2026-Present*

- Own backup/restore infra for production PostgreSQL: scheduled runs, off-site mirroring to S3, failure alerting and an ops panel with role-based access; each backup replayed into an isolated container and verified
- SafetyNet (pre-launch personal safety app): Own architecture and the merge gate, blocking access-control and data-integrity defects

Alzheimer's Therapeutic Research Institute — San Diego, CA
Software Engineer Intern — *January 2025-December 2025*

- Shipped a full-stack study-event tracking module on a cloud-native EDC platform supporting 15+ trial sites and 10K+ enrolled participants, replacing manual coordination with RABC, audit-ready workflows while raising automated test coverage from 0 to 95%
- Replaced manual regression reporting with a parallel-matrix CI telemetry pipeline that aggregated JUnit and coverage results to S3 on every build, feeding Grafana quality-trend dashboards and preserving audit-ready test history

USC Information Science Institute — Los Angeles, CA
Graduate Research Assistant — *July 2024-December 2024*

- Developed rate-limited public social data collection and reproducible ETL on High Performance Computing (HPC) to curate a 46M-post election discourse dataset. Added quality gates and lightweight NLP validation, supporting the ICWSM 2025 (CySoc) release

Genpact — Bengaluru, India
Management Trainee — *July 2023-December 2023*

- Unified workforce data across 5 systems for 30K employees, cutting executive reporting turnaround 70% and reducing ad-hoc queries 40% through automated ETL, a normalized reporting layer, and KPI dashboards.

Data Science Intern — *September 2022-November 2022*

- Enterprise Data Office: built AWS Glue ETL jobs for data-lake migration, validating S3 ingests with schema checks so corrupt files failed before SQL Server staging and Power BI reporting jobs consumed the data

RESEARCH/PROJECTS

Relay: Async Multi-Step LLM Engine **(***FastAPI, Postgres, SQS, Docker)*

- Built async engine for multi-step LLM workflows with queue-backed workers, per-step checkpoints and idempotent retries, so a crash mid-run resumes rather than duplicating paid calls; 0 duplicate billable calls and ~7.9x throughput over sync under fault injection.

Multimodal Misinformation Detection | *Capstone Project, Advisor: Nikos Kanakaris* *(PyTorch, HuggingFace, PEFT)*

- Created parameter-efficient multimodal misinformation detector (text, image, graph) with modality ablations and imbalance handling; improved fake-class F1 from SOTA 56% to 73% on real-world astroturf data

FITGPT| *2nd Place, USC HackSC'24* *(Flask, React, AWS, OpenSearch)*

- Built an AI training assistant with a retrieval layer over wearable/workout history (OpenSearch) and a low-latency web app; delivered personalized recommendations and shipped a live demo in 24 hours

SKILLS

- **Programming Languages:** Python, SQL, TypeScript/JavaScript, C++, Bash
- **Frameworks:** React, Django, Django REST Framework, FastAPI, Node.js/Express
- **Data Systems:** PostgreSQL, SQL Server, MySQL, MongoDB, Redis
- **Cloud and DevEx:** AWS, GCP, Docker, Kubernetes, Git, GitHub Actions, Terraform
- **Libraries:** PySpark, pandas, numpy, scikit-learn, HuggingFace, NLTK

PUBLICATIONS

[1] *"A Public Dataset Tracking Social Media Discourse about the 2024 U.S. Presidential Election on Twitter/X." Workshop Proceedings of the 6th International Workshop on Cyber Social Threats (CySoc) at* ***ICWSM 2025***

[2] *"E-voting System Using Blockchain Technology and Homomorphic Encryption"* International Journal for Research in Applied Science & Engineering Technology **(IJRASET) 2023**