

EDUCATION

- **University of Southern California** Aug 2025 – May 2027
M.S. in Computer Science
◦ Coursework: Analysis of Algorithms, Deep Learning
Applied Natural Language Processing, Machine Learning
- **The National Institute of Engineering (NIE)** Aug 2019 – May 2023
B.E. in Computer Science (Rank 1, Gold Medalist) | GPA: 9.90/10 (3.96/4)
Mysuru, India

EXPERIENCE

- **Fidelity Investments** Aug 2024 – Jul 2025
Software Engineer
◦ Owned end-to-end SSL certificate lifecycle using Kubernetes-mounted secrets and Bash; **eliminated manual renewals** and reduced ops toil by **60+ hours/year**.
◦ Designed and shipped Straight-Through Processing (STP) for tax analytics with **Spring Boot** microservices and **AWS EventBridge**; **cut analyst effort by 800+ hours/year**.
◦ Built automated Canadian tax filing (T3 Slips/Sums) with **Spring Batch**, **REST APIs**, and **Oracle SQL**; **improved data freshness** and auditability.
◦ Implemented validations via Java Streams and scheduled reporting through **AWS SES**; added failure alerts and runbooks to improve MTTR.
◦ Co-led an **OpenAI API** POC to classify financial anomalies; created an interpretability rubric for reviewers.
- **Fidelity Investments** Aug 2023 – Jul 2024
Associate Software Engineer
◦ **Modernized** Angular 14 → 18 with **TypeScript**; resolved **120+** migration issues and **stabilized CI** (GitHub Actions).
◦ Replaced on-prem SFTP with **AWS S3** managed transfers; **reduced delivery latency by 40%** and improved reliability.
◦ Built Canadian Funds UI in **Angular** backed by REST; added state caching and skeleton loading to trim **P95 render time**.
◦ Prototyped an internal **RAG** chatbot to summarize daily validation logs and anomaly reports using contextual retrieval.
◦ Drove Technology Lifecycle Management upgrades across EOL libraries, documented risks and rollout plans.
- **Fidelity Investments** Feb 2023 – Jun 2023
Software Engineer Intern
◦ Created a **Cucumber + Selenium + Java** test framework; raised automation coverage to **75%** and accelerated regression from a week to **6 hours**.
◦ Developed a data reception dashboard with **Angular + Spring Boot**; enabled feed-level health checks and SLA tracking.

PROJECTS

- **Quantifying Mating Behavior from Accelerometry** *Python, scikit-learn, NumPy, Matplotlib*
◦ Classified 13 avian behaviors from tri-axial accelerometer streams using **Random Forest and SVM classifiers**.
◦ Designed a **sliding-window feature extraction** approach computing mean, variance, and spectral energy for motion segmentation.
◦ Optimized classification accuracy (92%) while reducing inference time via **PCA-based dimensionality reduction**.
- **NewsScope: Event-driven News Summarization Pipeline** *Python, FastAPI, Transformers, RQ, Redis*
◦ Implemented a multi-stage pipeline (crawl → dedupe → summarize → sentiment) with background workers and **idempotent** task design.
◦ Exposed REST endpoints; cached responses; wrote **pytest** suites and structured logs to ease debugging and monitoring.
- **Anupama: Mental-Health Chatbot (Contextual RAG)** *Python, Hugging Face, FAISS*
◦ Built a **Retrieval-Augmented Generation** assistant with sentiment-aware routing; authored safety prompts and fallback.
◦ Delivered modular ingestion, vector search, and response ranking; documented SLAs and metrics for future iterations.

TECHNICAL SKILLS

- **Languages:** Java, Python, TypeScript/JavaScript, C++
- **Backend:** Spring Boot, REST, FastAPI, Batch, CI/CD (GitHub Actions), Testing (JUnit/pytest)
- **Cloud & Infra:** AWS (S3, EventBridge, SES), Docker, Kubernetes, Linux
- **Data:** Oracle SQL, Redis/queues, data validation pipelines
- **ML/GenAI:** Transformers, RAG, OpenAI API, scikit-learn, NumPy, Pandas, Matplotlib
- **Front-end:** Angular, HTML/CSS
- **Version Control:** Git