AAYUSH ANAND

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EDUCATION

New York University

Master of Science in Computer Science; GPA: 3.889/4.00

SRM Institute of Science and Technology

Bachelor of Technology in Computer Science and Engineering; GPA: 9.58/10

Expected May 2026

New York, USA

Chennai, India

Sep 2020 - May 2024

MODIC EXPEDIENCE

WORK EXPERIENCE

The NorthStar Group — New York, USA

 $\mathbf{Sep}\ \mathbf{2025}-\mathbf{Present}$

Software Engineering Intern

- Enhanced the functionality of **The Source website** by resolving backend/frontend issues, optimizing workflows, and ensuring reliable performance across **desktop and mobile platforms**, improving load stability by **25**%.
- Drove adoption of AI integration projects by researching tools, executing workflow experiments, and refining AI-driven features, cutting deployment errors by 15%.
- Partnered on end-to-end mobile and web application development using React, Node.js, SQL, contributing to feature coding, system debugging, and user testing; reduced bug resolution time by 20%.
- Advanced organizational security improvements through plugin/theme audits, vulnerability analysis, and malware remediation, enabling continuous performance monitoring and mitigating 30+ threats with zero downtime.

BeAhead Pvt Ltd — Remote (Washington DC, USA)

May 2025 - Aug 2025

Full Stack Engineering Intern

- Engineered a full-stack EdTech platform (React, Node.js, PostgreSQL, AWS) with gesture-based interactions, enabling 200+ concurrent users and cutting response times by 30%.
- Architected secure **REST APIs**, integrated **JWT authentication**, and tuned database queries, which increased backend throughput by **35%** and improved request handling efficiency.
- Facilitated agile collaboration in a team of 6 by leading code reviews, writing unit/integration tests, and enhancing CI/CD pipeline stability by 20% through Dockerized deployments with GitHub Actions.

Indiana University — Indianapolis, USA

Jun 2025 - Aug 2025

Data Analytics Research Intern

- Performed XML file analysis and pre-processing of GC/MS spectral data using Python + R, reducing feature extraction time by 75% and ensuring accuracy for downstream workflows.
- Assisted in **GCMS pipeline optimization** with statistical modeling and visualization in **R**, cutting manual intervention by 60% and accelerating research throughput for 3+ teams.

PROJECTS

SparkSearch — **Distributed Search Engine** (**GitHub**) — Apache Spark, PySpark, Spark SQL, AWS S3, Python, Typescript * Developed a distributed **search engine** handling **50 GB+ corpora**, enabling sub-second queries across millions of records and orchestrating an **ETL pipeline** for **100K+ documents/day** with **95% uptime**.

* Integrated Elasticsearch for ranking/faceting, delivering 3x faster query responses, and scaled throughput to 1M+queries/month with fault-tolerant deployments.

Smart Subtitle Summarizer (GitHub) — React.js, FastAPI, spaCy, Whisper, Scikit-learn, Chart.js

- * Implemented a modular FastÀPI backend with async task handling, supporting subtitle cleaning/summarization for 30+ users at 95%+ accuracy, while reducing analysis time by 40%.
- * Delivered an interactive **React** + **Chart.js frontend** with keyword analytics, playback, and reporting features, boosting engagement by 25%.

TECHNICAL SKILLS

Programming Languages: Python, C, C++, C#, SQL, HTML/CSS, R

Frameworks & DevOps: Django, Flask, .NET, FastAPI, React, Node.js, Next.js, Spring Boot, Docker, Kubernetes, Jenkins, Git, JUnit, Mockito, Typescript, Data Structures and Algorithms, Object Oriented Programming ML / Big Data / AI: TensorFlow, PyTorch, Scikit-learn, OpenCV, Hugging Face Transformers, PyTorch Geometric, MLflow, Hadoop, Spark, Kafka, Hive, MapReduce, HDFS, FAISS, Vector Databases (Pinecone, Milvus), MongoDB, NoSQL Cloud / Platforms: AWS, Microsoft Azure, GCP, Linux, Windows, Web, iOS, Tableau, Jira, Power BI

ACHIEVEMENTS

- Selected among **Top 10 ideas** from **150+ submissions** at the **Continental Hackathon**, **Bangalore**; secured **3rd place** for developing an AI-driven prototype under F2S Continental Innovation Challenge.
- Published paper on Detection of Distracted Driver using Deep-Learning Algorithm in IEEE Xplore (Link).
- Awarded academic scholarships totaling \$15,000 during B.Tech and M.S., recognizing consistent academic excellence.