

# Adithya Narayan

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## Education

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**Northeastern University - Khoury College of Computer Sciences** – Boston, MA

Master of Science in Computer Science, May 2024

**Ramaiah Institute of Technology** – Bangalore, India

Bachelor of Engineering in Information Science, June 2020

## Experience

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**SDE**, Bear Brown LLC – Boston, MA

July 2024 – Present

- Developed an asynchronous, multithreaded Python ETL pipeline using Google Cloud, parsing and analyzing 1,000+ NGO websites, aiding in LLM finetuning
- Designed and deployed an OAuth2-enabled full stack LLM chatbot into production using React and AWS
- Implemented a scalable LLM querying REST API with question-response caching using Redis and Flask
- Ensured robust deployments by setting up automated CI/CD pipelines with GitHub Actions, covering over 30 unit test cases using PyTest

**Software Engineer**, Skit – Bangalore, Karnataka, India

Dec 2021 – Aug 2022

- Used Kubeflow to build pipelines for speech recognition model benchmarking, enabling data scientists to test their models in a matter of hours instead of days
- Developed a Cobra CLI tool using Go Routines to build parallel audio preprocessing pipelines for large datasets (300 GB) on AWS S3, reducing manual efforts in model training setup by over 30%
- Wrote an A/B testing library using PostgreSQL, Metabase, and SQLAlchemy, increasing resolution rates by 20% across 3 clients while abstracting complex join and window queries

**Software Engineer**, Stride.ai – Bangalore, Karnataka, India

May 2021 – Jul 2021

- Developed Django microservices to process handwritten KYC documents/PDFs for over 10 million users using Kafka Producer-Consumer architecture, ensuring 99%+ test coverage with GitHub Actions
- Built a PDF annotator using React PSPDF and MongoDB, reducing annotation time by 3 hours on average for over 500 legal documents by increasing image and text metadata available per annotation
- Wrote an internal JSON-XML annotation conversion tool using Abstract Syntax Trees, saving 5+ hours per use case by normalizing format schemas into a singular format for downstream image processing tasks
- Implemented DAG Pipelines in Airflow for large image dataset preprocessing, denoising and cleaning over 10,000 documents stored on S3, ensuring high quality image datasets for downstream modeling

**IT Software Engineer**, Shell – Bangalore, Karnataka, India

Sep 2020 – Apr 2021

- Built SAP and SQL based reporting interfaces for cash transfer regulatory services and reporting, querying 100+ GB for 500+ users across Global Finance/HR teams, and ensuring near 24/7 uptime
- Developed a full-stack app using REST-based OData and SAP UI5.js to monitor real-time updates from Shell Retail, enhancing monitoring of over 1,000 products

## Projects

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**PaperGraphr** <https://adinarayanb.github.io/ConfGraphDataViz/>

- Developed a visualization tool using D3.js and Spark that analyzes graphical relationships between over 300 academic conferences, resulting in an interactive graph with over 1,000 nodes and 5,000 edges.
- Implemented data filtering and interactive features, including a search function, dynamic node selection, and real-time relationship strength adjustments. Deployed on Github Pages and Docker for ease of use.

## Skills

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**API Frameworks and Databases:** React, Django, Flask, FastAPI, OAuth2, PyTest, PostgreSQL, MongoDB, Redis

**Cloud:** AWS (S3, EC2, Lambda, SQS, ECR, ECS, Glue), GCP

**DevOps/Observability:** GitHub Actions, Docker, Terraform, Elasticsearch, Logstash, Kibana

**Orchestration/Data:** Kubeflow, Kafka, Kubernetes, Airflow, Spark

**Machine Learning:** LLMs, Computer Vision (OpenCV), NLP (NLTK), PyTorch (CNN, RNN-LSTM, Seq2Seq)