

ADITHYA N

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Seeking **Full Time** opportunities in Machine Learning and Data Science

TECHNICAL SKILLS

Languages: Java, Python, C++, Go, Bash

Backend: Django, gRPC, Kubernetes, Redis, FastAPI, Docker, MySQL, MongoDB, PostgreSQL, RabbitMQ, PySpark

AWS: S3, EC2, Lambda, SQS, ECR, ECS

Devops/Observability: Github Actions, Docker, Terraform, Datadog, Elasticsearch, Logstash, Kibana

Machine Learning: Pandas, Scikit-Learn, Plotly, Numpy, CUDA, TensorFlow, PyTorch, Seq2Seq, RNN-LSTM, Faster RCNN

EXPERIENCE

Skit.ai, Bangalore, India

December 2021 - August 2022

Research Engineer

Tools: PyTorch, TorchServe, Hidden Markov Models, Kubeflow, A/B Testing, Numpy, Pandas, PostgreSQL, Scikit-Learn

- Built a **multi-accented, bi-lingual HMM-GMM based numeric speech recognition model** and used supervised corpus biasing to reduce **SER(sentence error rate) by 20 percent for over 5 different numeric speech recognition use cases.**
- Built a pattern-based corpus generation tool that **reduced efforts in manual data curation and sourcing**, deployed the same as a docker container, and **reduced remote instance setup time from 3 hours to 4 minutes. This tool was used extensively by the solutions engineering team** to rapidly bias base speech recognition models to client-specific use cases, **improving the recognition rate by over 20% on average.**
- Performed A/B Testing to **select chunking-based conversation strategies to minimize sentence error rate and maximize word-level prediction performance.** This led to an **improvement of 10 percent for numeric speech recognition tasks while reducing user mental load by 33 percent.**
- Designed **Kubeflow Pipelines** to benchmark multilingual speech recognition models at scale, **reducing experiment execution time from 2 days to 3 hours.**

Stride.ai, Bangalore, India

May 2021 - July 2021

SDE- Machine Learning

Tools: FastAPI, Redis, YOLO V5, Tensorflow, AWS, NLTK, Embeddings, Numpy, Pandas, Scikit-Learn, OpenCV, React

- Architected Stride's Multilingual Key Phrase Recognition API, **increasing F-Score by 25% and recognition speed by 10 % using Redis as a vector database.** Deployed the same as an endpoint, and **reduced API failure rate from 3 per day to 1 per week by performing load/functional testing.**
- Spearheaded the design of an end-to-end full-stack PDF annotation tool, **decreasing Document Annotation time from 2 days to 7.5 hours, while increasing IoU by 17% and minimizing manual efforts in ROI localization.**
- Built an end-to-end noisy handwritten Dutch text detection/extraction model using **YOLO Object Detectors. Obtained a mAP(Mean Average Precision) of 71.5 percent and currently used by a very large European Bank with a customer base of over 30 million.**
- Built a custom XML to JSON parsing library that **reduced image and document annotation time by 35%.**

Shell, Bangalore, India

September 2020 - April 2021

IT Software Engineer

Tools: PostgreSQL, ETL Pipelines, OLAP, REST, SAPUI5.js

- **Devised and built ETL pipelines** for bank-specific regulatory services and reporting tools for international payments using SQL and Object-Oriented ABAP, **routinely used by global HR and Financial Reporting team.**
- **Built a scalable Fullstack App using REST-based OData and SAPUI5.js** to visualize and monitor real-time updates from Shell Retail.

PROJECTS

[Fake StackOverflow](#) | [React](#), [Node](#), [MongoDB](#), [Express](#), [Cypress](#), [Sessions](#)

December 2023

• Built a clone of the popular Q/A platform 'Stack Overflow', complete with Session Management and end-to-end testing. Used Builder and Factory Patterns to abstract functionalities in Javascript.

[PaperGraphr](#) | [React](#), [D3.js](#), [MongoDB](#), [Docker](#)

April 2023

• Designed and Developed a Community Visualizer for the DBLP citation analysis dataset, with built-in features to choose graph connection heuristics and graph-centrality based community filtering mechanisms. Uploaded the tool on docker.io.

EDUCATION

Northeastern University - Khoury College of Computer Sciences, Boston, United States

May 2024

Master of Science in Computer Science

Ramaiah Institute of Technology, Bangalore, India

September 2020

Bachelor of Engineering in Computer Science