

Adithya Boyanapalli

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Hyderabad, India

SUMMARY

Machine Learning Engineer and Tech Lead with 12+ years of experience in building big data solutions (on a scale of 1Billion), building real-time data streaming solutions, building platforms and Natural Language Processing based machine learning models. Successfully lead multiple ML projects from design to production. Agile and Adaptable with good problem-solving skills. Seeking an opportunity at a company, leveraging skills in Data Science and NLP to drive innovation and support the company's mission.

SKILLS

Data Science		Natural Language Processing		GenAI (LLM)		BERT	Python	Spark	Keras
Scala	Java	Hadoop	Apache Kafka	AWS	Distributed Systems		Docker	Kubernetes	

ACHIEVEMENTS

Content Platform Creation

Built a no-code platform, orchestrating 35,000 daily workflows and reduced researcher manual monitoring by 70%.

Large language Models

Led AI team to improve tax entity extraction accuracy using Flan T5 LLM model, transitioning from legacy models.

Natural Language Processing Models

Led team to clean and utilize ~1B product titles for NLP-based attribute extraction with accuracy of ~90%.

High Throughput Scheduler

Prioritized from among 1 Billion URLs to keep the freshness of frequently updated and customer important products.

EXPERIENCE

2019 - Present

Hyderabad, India

Machine Learning Tech Lead

Avalara Technologies

- As the lead of Artificial Intelligence team, built NLP models to extract tax entities for Sales and Use Tax from news articles & documents published by US states.
- Worked extensively on Named Entity Recognition, Dependency Parsing and Open IE libraries to extract tax rates, dates and jurisdictions from various sources of documents.
- Later transitioned the product to Large Language Models and used Flan T5 model to improve the accuracy further.
- As part of the Content Sourcing Platform team, built a no-code platform to aid Avalara researchers in identifying relevant updates to the tax notices pages being monitored.
- Worked on an Orchestration tool which is built on top of Temporal. This tool helps in orchestrating the steps that are involved in change detection. This enabled the non-coder researchers to drag and drop functions to create their own workflows. It is orchestrating 35000 workflows and running them daily.
- Build the UI for the platform using ReactJS.
- Cut researchers effort by 70% as they no longer have to monitor these websites manually and all the updates will be pushed to them as and when they are detected.

EXPERIENCE

2014 - 2019

Chennai, India

Software Engineer

Indix

- Created a scheduler for crawling URLs on priority. With our crawl capacity around 24M per day from around 1B URLs, the scheduler takes feedback from downstream systems to identify the URLs whose price/product data needs to be refreshed immediately by removing duplicates, prioritizing customer important stores and products whose price is frequently updating.
- This involved creating complex MapReduce workflows to ingest large volume of feeds having millions of records into our system, working extensively on Hadoop, Scalding, HBase and Kafka.
- Created an ML model to solve captcha on a site with > 95% accuracy and integrated into our crawler.
- Lead the Attribute Extraction team to in building Natural Language Processing solution to extract attributes from Product titles on e-commerce websites. It involved cleaning up, tagging and creating training set from around ~1Billion raw product titles.
- Created a CRF based ML model using this tagged data. The training features are derived by analyzing the patterns of attributes. Models are created by category (~4000). Since 4000 models had to be built, distributed systems were used to parallelize the training.
- When Indix got acquired by Avalara, worked on the team to showcase our capabilities and did a POC to show that our model (attribute extraction from titles) works on their problem statement (tax extraction from govt. notices) with minimal tweaks.

2011 - 2014

Bangalore, India

Software Engineer

Mphasis Ltd.

- Worked for the client JP Morgan Chase in their Treasury and Security Services division.
- Created an application which does the encryption, decryption, file translation and persistence of data sent from various clients to JPMC.

EDUCATION

2007 - 2011

Kharagpur, India

Bachelor of Technology in Aerospace Engineering

Indian Institute of Technology, Kharagpur