Saaketh Chaganty

Gen AI · Scalable NoSQL · Full Stack AI

Boston, MA

(551) 280 6937 | chaganty.s@northeastern.edu | saakethtypes.github.io | github.com/saakethtypes | linkedin.com/in/saakethchaganty

Education

2022-24 **MS in Information Systems**, *Northeastern University* | Boston, MA *3.5/4.0*

2017-21 **Bachelor's in Mechanical Engineering**, *Mahindra University* | Hyderabad, India *7.5/10*

Courses: DL | ML | Algorithmic Digital Marketing | Neural Modeling | Data Science Eng. Methods | Program Structures | Advanced Data Analytics | Application Modeling & Development | Web Development | Research Methods in AI

Skills

Programming	Python, JavaScript, C/C++, Go, Java, SQL, HTML | FastAPI, Django, Autogen, PyTorch, OpenCV, DSPy, TensorFlow, Matplotlib, NodeJs, ReactJS, Snowflake, Supabase
Software	Linux, Docker, Neo4j, Git, GCP, Azure, MS Power Apps, AWS Lambda, MongoDB, Pinecone , PowerBi, DynamoDB, Tableau, PostgresDB, PySpark, PyReason
Soft Skills	Time Management, Problem-solving, Holdership, Documentation, Volunteer developer.

Experience

Devocratic Technologies, *Lead Backend Engineer* | Delhi, India *April 2021 - Aug 2022*

- Engineered a scalable NoSQL single-table database and created RESTful APIs for a ***rapid prediction market trading*** platform (similar to nadex) in AWS DynamoDB, enabling secure & concurrent processing of 10K+ transactions for 40,000+ users, managing funds over 20k+ USD.
- Led cross functional teams constructing CI/CD pipelines automating content creation and customer support resulting in a cost savings of $850 per month

UrbanKisaan, (YC '20) *AI Solutions Architect* | Hyderabad, India *March 2021 - May 2021*

- Deployed a YOLO R-CNN model for a smart hydroponics farm (92% accuracy) to identify harvest stages in 12 crops , leveraging TensorFlow and PyTorch for training on rover-captured crop images, facilitating precise identification for 4 tonnes of produce.
- Led a team of 4 in streamlining end-to-end AI integration for dynamic yield-based discounted pricing for E-commerce marketplace; securing a ***feature in TechCrunch*** 2021 for pioneering autonomous large-scale farming, contributing to a 23% surge in sales.

OTSI, *Data Science Intern* | Hyderabad, India *April 2020 - Sep 2020*

- Deployed a robust face recognition OpenCV model for a facial attendance system at scale with MERN, successfully prototyping within the company with 200+ employees.

Projects

Full-Stack LLM Data Explorer *Nov 2023 - Jan 2024*

- Developed a full-stack LLM backed app for automated data analysis by executing Python & SQL code given by a role based agent having ***hierarchical graph RAG*** knowledge base on semantic model of the database columns and relationship triplets. Implemented stateful agent for custom conditional and execution nodes with reasoning edges using Neo4J, PgVector & OpenAI APIs.
- Innovated knowledge database engineering for evolving knowledge graphs with atomic fact extraction from website/pdf chunks to achieve complex data understanding achieving 88% in successful task completions.

Multi-Model Transformer for Weather Prediction *Sep 2023 - Nov 2023*

- Modeled a CNN transformer architecture for satellite images & weather station data with Conv2D LSTM & GRU attention layers performing ***predictive forecasting*** of lake-effect rain at lake Michigan.
- Researched and designed 12 visual & statistical features for cloud formations additionally utilizing SHAP toolkit for FE; Trained the model within 100 epochs to generate 3 days forecast for light rainfall with a 76% accuracy.

LLM Ad Targeting on Social Media Personas *Mar 2023 - May 2023*

- Built a social media platform with personalized ad delivery using a fine tuned ViT-G image captioning model to extract context from user posted images, enabling ***targeted ad placement*** based on image liking behavior and maintaining an evolving persona for each user.
- Developed a high-performance reverse image search using ImageNet pretrained weights for efficient image search over 10K+ images within 21ms using Pinecone, DynamoDB & Streamlit stack.

E-commerce Customer Churn Prediction *Mar 2023 - May 2023*

- Applied Logistic Regression using Snowflake & Scikit-Learn to ***predict churn*** customers expenditure for an e-commerce platform.
- Performed GridSearchCV, XGBoost, oversampling, and SMOTE to enhance model performance and achieved a 90% accuracy on the sales data.