

Saaketh Chaganty

GEN AI REASONING · SCALABLE BACKEND · FULL STACK AI

Boston, MA

(551) 280 6937 | chagantysaaketh@gmail.com | 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: Deep Learning | Machine Learning | Algorithmic Digital Marketing | Neural Modeling | Data Science Eng. Methods | Research Methods in AI | Data structures & Algorithms | Program Structures | Advanced Data Analytics | Database Management & Design | Application Data Modeling & Development | Enterprise Web Development

Skills

Programming	Python, JavaScript, C++, Java, SQL, PySpark, MLib, HTML, TypeScript, FastAPI, Django, Autogen, PyTorch, OpenCV, DSPy, LangChain, TensorFlow, Matplotlib, NodeJs, Snowflake, Supabase, GraphQL
Software	Linux, Docker, Neo4j, Git, GitLab, GCP, Azure, MS Power Apps, AWS Lambda, SQS, SNS, MongoDB, Pinecone, PowerBi, DynamoDB, Tableau, PostgresDB, PySpark, PyReason
Soft Skills	Time Management, Problem-solving, Holdership, Documentation
Agentic Apps	Twilio Phone GPT Interviewer, Chat with DB, RAG over Websites/PDFs, Conditonal agentic flows, Reasoning Engine

Experience

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

- Engineered a scalable NoSQL single-table database and created 60+ RESTful APIs for a prediction market trading platform (similar to nadex) in AWS DynamoDB, SQS, and SNS enabling secure & concurrent processing of 10K+ transactions for 40,000+ users, managing funds exceeding 20,000\$+.
- Designed and implemented a robust price change algorithm leveraging real-time data analytics to accurately reflect market demand and supply ensuring optimal market equilibrium.Led cross functional teams constructing CI/CD pipelines with GitLab.

UrbanKisaan, (Y Combinator 'S20) *AI Ops Intern* | Hyderabad, India Feb 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 pipeline 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 face recognition OpenCV model for a facial attendance system at scale with a team.
- Employed professional ML lifecycles and developing 8+ SQL stored procedures, successfully prototyping within the company for 200+ employee registers.

Projects

Recommendation System for Google Merchandise Store [Git](#) Sep 2024 - Dec 2024

- Built a PySpark MLib-based recommendation system using Alternating Least Squares (ALS) to predict user-item interactions, achieving a validation RMSE of 0.2.
- Engineered efficient user and item encoding pipelines, enriched recommendations with TF-IDF and metadata mapping, and generated top-10 personalized suggestions for 14,594 users.

Multi-Modal CNN Transformer [Git](#) 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.

Semantic Knowledge Graphs

- Built a scalable pipeline for automatic ontology construction from scientific literature to be coupled with LLMs for reasoning backed QA.
- Implemented and research multi-hop reasoning and Prolog-based inference engine & engineering frame-based semantic parsing.

Snowflake Customer Churn Prediction [Git](#) Mar 2023 - May 2023

- Applied and Deployed Logistic Regression using Scikit-Learn & Snowflake pipeline 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.

Agoda Clone Java MVC [Git Link](#)

- Collaborated with a team of 4 to develop a role-based Java OOD travel planning application with an RBAC database design, ensuring modularity, scalability, and data integrity, using Java EE and Spring Framework.
- Developed 30+ microservices using Spring Boot, following agile practices, and conducted code reviews for the team, resulting in a 70% reduction in bug reports. Presented the design with high-level diagramming.