

Chitra Kumar Sai Chenuri Venkata

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SUMMARY

Data Scientist with 4+ years of experience specializing in leveraging advanced analytics and machine learning to optimize business outcomes. I am passionate about mental health and have a minor in Social Psychology. Previously, I led a project that improved operational efficiency by 25%, resulting in \$2.8M annual savings. Also I am AWS Certified Machine Learning Specialist with a track record of delivering actionable insights that drive strategic decision-making.

EDUCATION

Doctor's Degree, Business Administration and Management, General (Quantitative research)

Expected June 2027

Ottawa University, Ottawa, Kansas, USA.

Master of science in Computer Science

3.97 | May 2021

Wichita State University, Wichita, Kansas, USA.

TECHINICAL SKILLS

- **Languages:** Python, R, SQL, PL/SQL, SAS, Unix, Snowpark/PySpark, Java.
- **ML & Statistical:** DNN, Linear models (scikit-learn), Boosted trees, statsmodels, regressions, A/B tests, clustering, probability.
- **LLM frameworks:** LangChain, LangGraph, LlamaIndex, Ollama, HuggingFace.
- **ML-Ops:** Snowflake-MLOps, Docker, Databricks, MLflow.
- **Certifications:** AWS Certified Machine Learning – Specialty (Credential ID: X0RY92D19BR4Q5WF) - [verify](#)
Azure Data Engineer Associate (DP 203, Certification number: 8B6D40A41A0021B7) - [verify](#)

PROFESSIONAL EXPERIENCE

Data Scientist | Koch (INVISTA) | Wichita, KS, USA | Manufacturing

May 2022 – Present

- Implemented an **AI-driven Customer Support Agent** using LangChain and LangGraph to check inventory, create orders, answer product-related questions, and **recommend the best products**, achieving a **25% reduction in labor costs** by automating key customer service workflows. (Reference code: [gitrepo](#)).
- Developed an **end-to-end patent monitoring tool** leveraging the HuggingFace model (*chemical-bert-uncased*) to identify potential **infringements and relevant patents** in Koch portfolio, **boosting research efficiency by 30%** through advanced classification.
- Implemented LLM/RAG for **contextual summarization** on patents achieving a **ROUGE-L score of 0.71** which facilitated the development of strategic patents, contributing to \$1.2M in revenue.
- Developed a **catalyst performance forecasting** solution using **Nixtla MLForecast** to predict catalyst degradation and optimize operations, **achieving a 35% efficiency improvement** and **saving \$2.9M** by minimizing catalyst downtime across all sites.
- Enhanced an existing **demand forecasting model** using Nixtla MLForecast, analyzing over 1.7M data points (expanding dataset) to improve supply chain operations. Achieved a **28% increase in efficiency** by optimizing demand planning and **last-minute nylon product procurement processes**.
- Implemented an advanced **computer vision system** using OpenCV and PyTorch with fine-tuned ResNet 50 models to **detect harmful gas leaks** across all plants. Enhanced **operational efficiency by 25%**, generating \$2M per site and saving **\$500K in safety equipment costs**.

Data Engineer | Fractal Analytics | Remote, USA | Consulting/Marketing

Oct 2021- April 2022

- Developed a SQL/Tableau-driven solution to **monitor Repair Turn Around Time**, enhancing the **repair experience for over 550 global users**. Leveraged ML algorithms to identify crucial improvement drivers, **boosting customer satisfaction by over 40%**.
- Engineered an automated data management framework using Alteryx to integrate and reconcile data from diverse sources.
- Applied **Data Quality Management** & machine learning techniques to ensure the **integrity & accuracy of an expanding dataset**.
- Built a tailored solution employing the Tesseract OCR engine, OpenCV, and machine learning models for text extraction from invoice documents. This enhanced client efficiency by 32% and generated an annual value of \$500,000.

Junior Software Engineer – Azure Identity | Mindtree Ltd | Hyderabad, TS, India | Consulting/Operations.

July 2017 – June 2019

- Ingested data from various sources through SQL, azure data lake, Box, snowflake using Python to create data views that are consumed by users for pricing analysis and catching price anomalies which resulted in saving \$1M annually.
- Effectively mined and developed **clustering model** using to rank and identify fraudulent customers on various azure services through Azure billing and subscription API and improved the quality customer utilization ratio by 25%.
- Lead the team of 5 and achieved sales forecasting **MAPE less than 4.4%** for pet product monthly prediction by employing XGboost with hyperparameter tuning for precise time series forecasting. This improved **customer satisfaction rating from 3.8 to 4.5** and maintained an average 4.45 rating across the team for 6 months.
- Elevated pet product **Recommendation System** by leveraging natural language processing (NLP), analyzing consumer reviews, and providing personalized recommendations to businesses and helped client generate a **revenue of \$11M**.

ACHIEVEMENTS AND AWARDS

- Scholarship awardee at Wichita State University from 2019 – 2021.
- Admitted into the **“Order of the Mentors of the Library”** at Wichita State University (May 2021).
- **Awards:** 1st place (0 resets) & 4th for quickest track completion in all Koch-AWSDeepRacer reinforcement learning competition.