

# SEYED HAMID TABARI

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## EXPERIENCE SUMMARY

ML/LLM Engineer with 6+ years of experience building and deploying applied ML pipelines and GenAI systems in high-stakes environments. Proven expertise in RAG, prompt engineering, LLM fine-tuning, and inference orchestration at enterprise scale. Recognized for shipping production-ready solutions that reduce cost, accelerate workflows, and persist organizational knowledge. Experienced in cross-functional collaboration with product and engineering teams to translate research into live APIs and applications.

## WORK EXPERIENCE

**Koddi**, Austin, TX

**Senior Data Scientist / Team Lead**

Project: RTB (Real-Time Bidding) Forecasting Engine

- Directed and mentored a team of five data scientists in designing and deploying advanced time-series forecasting models for real-time bidding optimization, building the full ETL data preparation pipeline with NVIDIA NVTabular and Merlin to achieve millisecond-level inference, improving forecast accuracy by 15%, enabling smarter client budget allocation, and driving multi-million-dollar revenue gains.
- Designed and implemented a scalable cloud-based ML environment with GitHub Actions, AWS EKS, and Triton Inference Server to support GPU-intensive algorithms, reducing model deployment time by 40% and accelerating delivery of high-impact advertising solutions.

May 2025 - Present

### On the Job Skills

- Agile Team Management
- Leadership
- Mentorship
- Forecasting Engine
- CI/CD Automation
- Kubernetes / AWS EKS
- Distributed Systems
- Nvidia Ecosystem
- PyTorch
- Databricks

**Walmart Global Tech**, Bentonville, AR

**Senior Data Scientist / Machine Learning Engineer**

Project: GenAI-Powered Maintenance Optimization

- Owned and optimized applied ML/LLM pipelines (DistilBERT, FAISS, RAG Fusion, GPT-4 with prompt engineering) to deploy a smart resolution assistant in production, reducing technician visits and enabling self-service troubleshooting across ~5,000 Walmart stores.
- Fine-tuned and optimized transformer models (DistilBERT) on domain-specific maintenance data, using redundancy removal (MMR-action) and semantic search to convert noisy technician notes into non-redundant, step-by-step instructions, improving retrieval accuracy and reducing hallucinations in production.
- Built evaluation and monitoring pipelines (ROUGE, cosine similarity, Jaccard) to track LLM performance, safety, and compliance in a regulated enterprise environment.
- Specialized in optimizing LLMs using Walmart datasets to automate the conversion of textual inputs into SQL queries, enabling faster and more efficient generation of actionable insights for Merchants. Successfully developed a Minimum Viable Product (MVP) to demonstrate the solution's potential and scalability.

April 2022 – May 2025

### On the Job Skills

- LLM
- Finetuning
- RAG
- Prompt Engineering
- Vector Database
- Semantic Search
- Hugging Face
- GPT-4 / Generative AI
- RAG / RAG Fusion
- FAISS
- Domain-specific LLM
- Transformers
- Hallucination Reduction
- Agentic AI

Project: Financial Planning (Team Leader)

- Led and mentored a cross-functional team of four data scientists and analysts to deliver highly accurate, machine-learning-based quarterly forecasts for Walmart's Omni-Channel departments. Leveraged agile methodologies and fostered cross-functional collaboration to achieve \$4M in cost savings and reduce associate workload by 152 hours per quarter.
- Designed, distributed, and scaled machine learning algorithms on Google Cloud using Apache Airflow, API-based programming, and Kubernetes Engine, achieving an 80% reduction in runtime and enhancing operational efficiency.
- Developed and implemented an advanced forecasting ensemble model, integrating Bayesian methods, boosting techniques, and deep learning models to replace a manual, error-prone financial planning Excel process. This innovation reduced forecasting errors by 18% and improved decision-making accuracy.

- Forecasting
- Cross Functional Collaboration
- Time-Series Analysis
- Tensorflow
- Machine Learning
- Bayesian Statistics
- Airflow
- MLE / MLOPS
- GCP / VertexAI
- Pyspark / DataProc

Project: Productionization of Demand Score Project

- Designed and deployed ML workflows for the Demand Score Project, transitioning from development to production using Airflow, Docker containers, Kubernetes, Serverless Spark, and Ray distributed cluster, which fully automated the project and cut labor costs by 80

- FastAPI
- Docker Container
- Ray

**Data Scientist**Project: Sales Forecast and Business Planning

- Designed and implemented Entity Relationship (ER) Diagrams to efficiently integrate data from diverse sources, optimizing data preparation for machine learning algorithms using SQL. This led to a 60% improvement in ETL pipeline performance and streamlined data workflows.
- Utilized causal inference procedure (Causal Forest) to detect and measure main sales drivers such as products' horizontal facings for modular changes and retail prices for markdowns.
- Built and optimized time-series dashboards to visualize data and key findings via Tableau, providing insightful recommendations to business stakeholders to solve business problems.

**On the Job Skills**

- BigQuery
- Rational Database
- Causal Inference
- Tableau

**Local Theory (Startup), Bentonville, AR**

June 2020 - August 2022

**Data Scientist: Intern**Project: Product Substitute Recommendations Levering Image Recognition

- Spearheaded a deep learning substitute recommendation model leveraging CNN and RNN for General Merchandise and Consumables & Food categories.
- Implemented a natural language processing model to unify products descriptions, improving test accuracy of the recommendation model up to 94%

**On the Job Skills**

- Computer Vision
- OpenCV
- NLP
- Linux
- Recommendation Model

**UNIVERSITY OF ARKANSAS, Fayetteville, AR**

September 2016 - September 2019

**Research Assistant (Machine Learning Researcher) (Department of Chemistry)**

- Enabled a team led by Head of Chemistry Department to save 60% of their resources by employing a reusable machine learning algorithm (fuzzy clustering) to address their business need of medicine pattern recognition
- Mentored and coached three analysts and programmers in conducting machine learning techniques on biological datasets, resulting in their paper publications

**On the Job Skills**

- R
- HPC
- Object Orient Programming

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**EDUCATION****UNIVERSITY OF ARKANSAS, Fayetteville, AR**

2018 - 2020

Master of Science in Statistics and Analytics (Minor in Computer Science), GPA= 3.9/4.0

**Tarbiat Modares University, Tehran, Iran**

2014 - 2016

Master of Science in Nanophysics, GPA=3.9/4.0

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**PUBLICATIONS**Journal Papers:

- Tabari, S. H., Jamali, Y., & Poursalehi, R. (2015). Multi-scale simulation of carbon nanotubes interactions with cell membrane: DFT calculations and molecular dynamic simulation. Procedia Materials Science, 11, 423-427.
- Harkey, T., Govind Kumar, V., Hettige, J., Tabari, S. H., Immadisetty, K., & Moradi, M. (2019). The role of a crystallographically unresolved cytoplasmic loop in stabilizing the bacterial membrane insertase YidC2. Scientific reports, 9(1), 1-12.

Conference Posters:

- Polasa, A., Tabari, S. H., & Moradi, M. (2021). Developing Efficient Transfer Free Energy Calculation Methods for Hydrophobicity Predictions. Biophysical Journal, 120(3), 115a.
- Isu, U., Tabari, S. H., Kumar, V. G., & Moradi, M. (2020). Effect of Cholesterol on the Structural Dynamics of Metabotropic Glutamate Receptor (MGLuR1): A Molecular Dynamics Study. Biophysical Journal, 118(3), 525a.
- Hettige, J., Tabari, S. H., & Moradi, M. (2018). Lipid-Dependent Alternating Access Mechanism of a Bacterial Multidrug ABC Transporter: A Molecular Dynamics Study. Biophysical Journal, 114(3), 461a.
- Tabari, S. H., Hettige, J., & Moradi, M. (2017). All-Atom Molecular Dynamics Simulation of Stealth Liposomes. Biophysical Journal, 112(3), 75a.

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**ACCOMPLISHMENTS**

- **Walmart Work Award** Exemplary performance award, securing the top performance ranking achieved by top 1% of employees.
- **Certificate** Natural Language Processing Specialization by DeepLearning.AI  
Link: <https://coursera.org/share/37e66f01f106cc318ae8c2252e18cd1d>
- **Certificate** Generative AI with Large Language Models by DeepLearning.AI  
Link: <https://coursera.org/share/06c7dfb1a26cd72f36bdfd1d8730040f>
- **Certificate** Object-Oriented Design by University of Alberta  
Link: <https://coursera.org/share/5a435cf23c3c90946b4342c9d7612e12>
- **Certificate** Operations Research by National Taiwan University  
<https://coursera.org/share/264c4f30d2ea1c2bf23fd627449b6083>  
<https://coursera.org/share/2bc11a1da00fecf5e314fd28adb5ac2b>  
<https://coursera.org/share/a0b4c9889b2733987beeb116e57e8ccc>