

# Abhishek Ramesh

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## Education

**University of Texas at Austin** August 2024 - December 2025  
M.S Data Science, Department of Statistics & Data Sciences - GPA: 3.4

**University of San Francisco** August 2018 – May 2021  
B.S Data Science, Department of Mathematics & Statistics - GPA: 3.4

## Professional Experience

**Kaiser Permanente** Pleasanton, USA  
IT Applications Engineer II  
Risk Adjustment Data Analytics May 2022 - Present  

- Developing/maintaining ETL pipelines **processing 1TB/day** with Azure, Hive, Databricks
- **Saved \$2k/month** by automating data migration tracking of 1795 tables with PowerBI

  
External Provider Analysis Tool April 2025 - Present  

- Designed ML pipeline cutting medical document review time **saving \$20M/annually**
- **Built scalable infrastructure** with Docker/K8s, parallel processing to achieve 96% extraction
- Engineered vector search with Cosmos delivering **sub-100ms query responses**
- Built document chat engine for efficient document navigation with **98% citation accuracy**

**Optiwise** Roseville, USA  
Software Engineer I May 2021 - May 2022  
Built a scalable REST API on AWS EKS for medical records extraction with 97.8% accuracy in Python

## Projects

**PlayBook AI: Basketball Intelligence ([GitHub Repo](#))** April 2024 - Present  
Developed advanced video software to classify offensive/defensive basketball plays  

- **Achieved 87.6% accuracy** with temporal neural networks in PyTorch
- Engineered a custom YOLO object tracking model with **99.5% mAP50** and 99.6% precision
- Designed spatial database with spatial index achieving **<80ms response time** for proximity query
- Optimized AWS compute costs by model pruning and **reducing features by 63%** with PCA
- Implemented project with CI testing, Docker/Kubernetes, and GPU-accelerated programming

## Technical Skills

- Programming : Python, NoSQL / SQL, Apache (Hive, Airflow, NiFi), R, Databricks
  - Libraries: NumPy, Pandas, Tensorflow, OpenCV, psycopg2, CUDA, Hugging Face
- Machine Learning : Deep Learning (LSTM, CNN, Transformers), Feature Engineering, Computer Vision, Prompt Engineering, Time-Series Analysis, Spatial Computing, Reinforcement Learning
- Data Engineering : AWS/Azure, Data Modeling, Docker/Kubernetes, CI/CD, Informatica, Airflow