

SANDRA KETTIDATHIL CHANDY

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EDUCATION

INDIANA UNIVERSITY, BLOOMINGTON

Masters in Data Science

Bloomington, IN
Expected May 2027

Relevant course work: Statistical inference using R, Applied Machine Learning, Applied Database Technologies

COLLEGE OF ENGINEERING, TRIVANDRUM

Bachelors in civil engineering

June-2023

Kerala, India
Cgpa - 9.57

Relevant coursework: Linear Algebra and Calculus, Vector calculus, Differential Equations and Transforms, C language, Probability, statistics and numerical methods

WORK EXPERIENCE

SOFTWARE DEVELOPMENT ENGINEER- 1

IBS Software

Kochi, India
July 2023- July 2025

- Optimized critical features in Expedia's iOS Property Details Page (18M+ users) using experimentation and data-driven decisions.
- Integrated GraphQL with optimized parallel loading, improving load time 32% and reducing customer drop-off 12%.
- Designed A/B tests and applied ML-based ranking improvements, increasing booking accuracy by 1.7 bp.
- Instrumented analytics events and conducted deep-dive performance analyses to validate product improvements.

TUTOR

National service scheme

Trivandrum, India
June 2016- Sep 2016

- Tutored underserved students in STEM subjects under NSS, India, supporting equitable access to education.

PROJECTS

Derma Scanner — AI Skin Cancer Detection Web App

Computer Vision · Healthcare · Deployment

- Built & deployed a skin-lesion classifier (EfficientNet-B0, 80% accuracy) with full inference pipeline & PDF triage reports on HuggingFace.

Hospital Readmission Risk Model (Cost-Aware)

Healthcare ML · Interpretability

- Developed a 30-day readmission predictor (AUC ~0.82) and cost-optimized thresholds using SHAP for clinical explainability.

Medical Claim Fraud Detection (Graph ML)

Graph Neural Networks · Anomaly Detection

- Built a patient-provider claim graph and used GraphSAGE + anomaly detection to improve fraud audit precision by 35%.

Credit Approval Risk Model (Fairness Audit)

FinTech · Responsible AI

- Built credit-risk models with fairness metrics (DP, EO) and SHAP-based governance dashboard.

SKILLS

- Programming: Python , SQL, R, Java, Kotlin, Swift UI
- ML/DL: scikit-learn, PyTorch, TensorFlow, XGBoost, LightGBM
- Data Engineering: Spark, Airflow, Dask
- MLOps: Docker, FastAPI, MLflow, GitHub Actions, AWS/GCP
- Analytics & Visualization: pandas, NumPy, matplotlib, seaborn, Plotly, Tableau
- Specialties: Computer Vision, NLP, Tabular ML, Time Series, Explainability (SHAP/LIME), Healthcare & Fraud Analytics

ACHIEVEMENTS

- Top 1% of students - Graduated from APJ Abdul Kalam Technological University.
- Batch Topper in Senior secondary level.
- Winner, Hackathon conducted by Expedia Group