

Thenmozhi Boopathy

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EDUCATION

Miami University

- Master of Science in Business Analytics

Bharathidasan University

- Master of Philosophy in Mathematics
- Master of Science in Mathematics
- Bachelor of Science in Mathematics

Oxford, OH

Expected Graduation 2027

TamilNadu, India

2008

2007

2005

RELEVANT COURSEWORK

Data Mining: Exploratory Data Analysis, Dimension Reduction, Tree-Based Models, Logistic Regression, Neural Networks, Model Evaluation,

Big Data: Core Python, Pandas, NoSQL (MongoDB), Web APIs, Scikit-learn. **Cloud & GenAI:** Databricks, Apache Spark, Delta Lake, Unity Catalog, Databricks Vector Search, LangChain, MLflow, Retrieval-Augmented Generation (RAG).

PROJECT EXPERIENCE

Enterprise RAG Chatbot — Job Finder Assistant (ISA-632)

2026

Built and deployed an enterprise-grade Retrieval-Augmented Generation (RAG) chatbot on Databricks with a 3-person team: used Apache Spark to ingest 2,500+ job records into Delta Tables, integrated Databricks Vector Search with a LangChain agent on Llama 4 Maverick, and built a Streamlit UI with MLflow-tracked evaluation, achieving 89% positive user feedback. Live: analystjobfinder.streamlit.app

End-to-End R Machine Learning Workflow for Loan Default Prediction (ISA-591)

2025

Designed and implemented an end-to-end R machine learning pipeline for loan-default prediction, engineering features, training multiple classification models, and evaluating performance with a focus on minimizing high-risk False Negatives.

Theme Park Attendance Forecasting Pipeline with Python (ISA-514)

2025

Built a Python-based machine learning pipeline using MongoDB for data storage and integration of structured and unstructured sources (weather, wait times, schedules, Reddit sentiment) to forecast Six Flags attendance for operational decision-making.

Inventory Models Dissertation - Graduate Project

2008

Built and analyzed deterministic inventory models to reduce costs, evaluate price-break impacts, and assess system stability under shortages.

PROFESSIONAL EXPERIENCE

S.A College of Engineering

Chennai, India

Assistant Professor

2015-2015

- Delivered instruction in quantitative and statistical methods (numerical analysis, probability, matrices, and applied functions), emphasizing analytical problem-solving skills relevant to data-driven business decision-making.

Sri Venkateswara College of Engineering

Chennai, India

Assistant Professor

2012-2013

- Performed lecturing in advanced quantitative methods (calculus, sequences, integrals), building strong analytical and problem-solving foundations relevant to data modeling and forecasting.

Bon Secours College for Women

Tanjore, India

Lecturer (PG and UG)

2009-2012

- Conducted training in mathematics and analytics concepts for undergraduate and postgraduate students, strengthening quantitative reasoning, data interpretation, and problem-solving skills.

VOLUNTEER ACTIVITIES

Language Teacher

Cincinnati, Ohio

Greater Cincinnati Tamil School, Cincinnati

2021-2025

- Designed and provided customized language programs for students of varying proficiency levels, using assessments to track progress and enhance outcomes. Coordinated program logistics and engaged stakeholders to promote the Seal of Biliteracy.

Gifted Education Co-Representative

Cincinnati, Ohio

Sycamore Gear

2023-2024

- Designed and executed student engagement initiatives, enhancing community involvement and program effectiveness.

SKILLS

Certification: Databricks University Alliance Student — Databricks (issued 2026).

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| • Python | • Pandas | • SQL |
| • Jupyter Notebook | • R | • RStudio |
| • NoSQL | • Power BI | • GIT |
| • Visual Studio Code | • ML pipeline | • Delta Lake |
| • Databricks | • LangChain | • Vector Search |
| • Apache Spark | • MLflow | • GenAI / LLM |