

BARATHKANNAN S E

+1 520-460-9255

barathkannanse@arizona.edu

(mailto:barathkannanse@arizona.edu)

Data Scientist

About Me

Data scientist with 3+ years of experience building ML systems and data pipelines that cut costs and improve decisions. Comfortable taking models to production on cloud stacks.

Experience

Data Scientist

Damper Technology Limited · Coimbatore, IN

Jan 2024 – Jul 2024

- Engineered a Python-based predictive maintenance system for industrial dampers; analyzed 400k+ IoT readings with FFT, NumPy, Pandas, regression → cut downtime 20% and saved >\$100K/yr.
- Built forecasting + ETL pipelines (Docker) to automate data consolidation → +33% forecast accuracy, +10% production efficiency.

Business Intelligence Analyst

Coimbatore, IN

Nov 2022 – Aug 2023

- Led a team of 4 to automate ETL for 3M+ global sales records using Python, SQL, PySpark → processing time -25%.
- Designed KPI dashboards integrated with Snowflake → ROI +12%, budget allocation +15%.

Financial Data Analyst

Orbinox · Coimbatore, IN

Jul 2021 – Oct 2022

- Built ARIMA forecasting across 1M+ financial records → better resource allocation (15%) and inventory planning.
- Used SQL + K-Means for price optimization of knife-gate valves → ~\$20K revenue, overhead -8%.

Machine Learning Intern

Premier Foundries · Coimbatore, IN

Sep 2020 – Mar 2021

- XGBoost model to optimize blast-furnace performance → efficiency +8%.
- Improved anomaly detection by 6% via IQR, Z-score, rolling statistics on high-frequency sensors.

Languages

English - Professional

Skills

Programming & Big Data:

python, r, sql, sas, hadoop, spark, snowflake, databricks

Data Visualization:

tableau, power bi, microsoft excel, matplotlib, seaborn

ML Frameworks:

scikit-learn, tensorflow, pytorch, keras, hugging face transformers, spacy, nltk

Cloud & DevOps:

aws (s3, lambda, sagemaker), azure, gcp, kubernetes, docker, git

Core Competencies:

statistical analysis, predictive modeling, deep learning, nlp, data engineering

Education

MS, Management Information Systems (Data Analytics Track)

University of Arizona · Tucson, AZ

Aug 2024 – May 2025

(expected)

Cloud, Data Engineering, ML,

NLP, Big Data Systems

BE, Mechanical Engineering

Anna University

2017 – 2021

Interests

Data Science

AI Applications

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Experience (Cont.)

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Projects

AI-Enhanced Investment Strategy via Sentiment Analysis

Nov 2023
NLP pipeline for market sentiment integrated into portfolio strategy; improved risk-adjusted returns vs baseline.

Audio Emotion Recognition (CNN)

Oct 2023
CNN on spectrograms to classify emotions from speech; strong accuracy on held-out audio.

Real-Time E-commerce Price Scraper

Sep 2023
Python scraper + scheduler to track competitor prices and alert on deviations for dynamic pricing.