

# SILAS SWARNAKANTH KATI

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## EDUCATION

### UNIVERSITY OF MINNESOTA – TWIN CITIES, MN

#### Master of Science in Data Science

May 2023

Fall 2021: Data Mining, Principles of Database Systems, Applied Regression Analysis

Spring 2022: Machine Learning Fundamentals, Theory of Statistics, Architecture and Implementation of DBMS

### GITAM UNIVERSITY, AP, INDIA

#### Bachelor of Technology in Computer Science and Engineering

July 2020

Relevant coursework: Data Mining, DBMS, Cloud Computing, Information Retrieval Systems,

Probability and Statistics, Discrete Mathematics

GPA: 3.96/4.00

## PROFESSIONAL EXPERIENCE

### BRANDONLINE.IO (Mumbai, India)

Oct. 2020 – May 2021

#### Data Science – Intern

- Involved in a Full Stack project intended to sync databases and provide real-time analytics across clients using **FastAPI**.
- Evaluated processes for productivity gains and provided actionable insights and sales growth areas to clients on **PowerBI**.
- Single-handedly set up production infrastructure on **AWS** maintaining low costs, high scalability, and resiliency.
- Developed an extensive and user-friendly CLI using **Boto3** for the Full Stack project.

### IIT BOMBAY (Mumbai, India)

Sept. 2020 – Nov. 2020

#### Software Project Management – Intern

- Managed planning, structure, development, and release of **Akshar Anveshini** project.
- Streamlined tasks to provide easier and more efficient workflows for the teams and the professor.
- Reduced the project duration by **2 months** by improving structure and communication across teams and departments.
- Were able to reach **200 books** a month efficiency.

## ACADEMIC PROJECT EXPERIENCE

### MARKET BASKET ANALYSIS FOR TARGETED SALES | [Github Link](#)

Fall 2021

Course project | University of Minnesota – Twin Cities

- Implemented **Apriori** and **FP-Growth** algorithms to analyze customer spending pattern.
- Performed customer segmentation using **K-means** and **Hierarchical Clustering** along with **PCA** reduction.
- Achieved optimal results for user product recommendation using various classification models.

### IMAGE DATABASE ARCHITECTURES | [Github Link](#)

Fall 2021

Course project | University of Minnesota – Twin Cities

- Evaluated performance of queries on image search using various DB designs.
- Analyzed effect of indexing like **B-Trees**, **Bitmapping** on DB tables and their efficiencies.

### IMAGE CAPTION GENERATOR | [Github Link](#)

Nov. 2019 – May 2020

Major project | GITAM

- Combined **Xception CNN** with **LSTM** to make an end-to-end model.
- Trained the model on Flickr8k dataset achieving around ~90% accuracy.

### ACTIVITY RECOGNITION USING KERAS | [Github Link](#)

July 2019 – Nov. 2019

Minor project | GITAM

- Trained the **ResNet50** model with images scraped from the web.
- Employed rolling prediction averaging to avoid prediction flickering.

## SKILLS

**Cloud:** AWS, Digital Ocean, Heroku

**Languages:** Python, R, C, C++

**Databases:** PostgreSQL, MySQL

**Frameworks:** TensorFlow, Keras, FastAPI

**Tools:** Excel, JupyterNB, Power BI, Tableau, Trello

**Analytics:** Statistics, Regressions, Feature Selections, Clustering, Forecasting, SVMs

## CERTIFICATIONS

- AWS Certified Solutions Architect Associate (Pursuing).
- AWS CloudFormation Master Class.
- Complete Backend (API) Development
- Ultimate MYSQL Bootcamp
- Mathematics for Machine Learning

## LEADERSHIP

- Marketing Intern at the University of Minnesota Dining Services.
- Have been Campus Ambassadors for [HackerEarth](#), [GeeksforGeeks](#), [Swiggy](#), and [Dell](#).
- Headed the Graphic Design team of [CSI GITAM](#) student branch.
- Was a member of a Social Welfare Organisation called [Vivaann](#).