

# Sandhya Kilari

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## EDUCATION

### Michigan State University

*Master of Science in Data Science; GPA: 4.0*

East Lansing, MI

*August 2023 – May 2025*

**Courses:** AI Computation Foundations, Data Mining, Statistical Modeling, Big Data Analysis, Computer Vision

### Siddaganga Institute of Technology

*Bachelors in Electronics and Communication Engineering; GPA: 3.62 (8.84/10.0)*

Tumakuru, India

*July 2016 – May 2020*

**Courses:** Machine Learning, Image Processing, Object-Oriented Programming, Linear Algebra

## EXPERIENCE

### QSIDE Institute

Williamstown, MA (Remote)

*Internship (Research and Development Fellowship)*

*July 2024 – Present*

- Developed an action research program for the Tribal Funding Registry to enhance grant access for indigenous communities.
- Researched and identified funding opportunities and scraping data from public databases to establish robust metadata standards.
- Analyzed data and presenting insights to stakeholders, including technical partners and tribal communities, to facilitate informed decision-making.

### US Department of Agriculture (USDA) Agricultural Research Service (ARS)

East Lansing, MI

*Student Research Assistant III*

*July 2024 – Present*

- Developed and validated multivariate regression models (PLSR, MLR) and machine learning models (SVM, ANN) to accurately predict quality traits of dry beans from image and spectral data.
- Designed and implemented an application integrating machine vision, Vis-NIR spectroscopy, and hyperspectral imaging technologies to predict key quality attributes such as color, texture, size, and nutritional content. The application features intuitive UI, robust backend services, and machine learning models for accurate prediction and assessment.

### Henry Ford Health + Michigan State University Health Sciences

East Lansing, MI

*Student Research Assistant III*

*May 2024 – Present*

- Leveraged patient-reported outcomes to predict health utilization in cancer patients. Cleaned and preprocessed data to ensure quality and accuracy. Analyzed and handled missing data to maintain dataset integrity.
- Trained and evaluated machine learning models for risk prediction. Utilized Python, R, Pandas, NumPy, Seaborn, Matplotlib, and Scikit-learn for data analysis and visualization.

### Accenture Solutions Pvt. Ltd

Bengaluru, India

*Analyst*

*Nov. 2020 – July 2023*

- Led data integration initiatives, managing migrations and system upgrades with SQL Server, .NET Core MVC, and Azure DevOps to enhance application performance.
- Developed analytics solutions for monitoring and reporting program performance using Dynamics 365 CRM, supporting data-driven decision-making for a Microsoft client.
- Applied machine learning techniques to propose predictive models that improve application functionalities, increasing user engagement and operational efficiency.

### Apsis Solutions

Tumakuru, India

*Intern*

*Summer 2018*

- Leveraged training in embedded systems to extract and preprocess data from diverse processors and microcontrollers like PIC 18 and ARM 7, facilitating data-driven insights for PCB manufacturing processes.
- Developed Internet of Things (IoT) solutions to enable real-time data collection and exchange between production equipment and analytical platforms, enhancing operational efficiency and predictive maintenance strategies.
- Designed and implemented an Android application using MIT App Inventor, enabling user interaction and data visualization, thereby improving stakeholder communication and decision-making based on real-time data analytics.

## PROJECTS

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- **Heart Disease Assessment:** Engineered a predictive model using Python and machine learning to evaluate heart disease risk, targeting early intervention and cost reduction.
- **Sentiment Analysis:** Crafted a sophisticated sentiment analysis system using Python, NLP and Flask to autonomously analyze and categorize customer reviews.
- **Bike Rental Prediction Analysis:** Analyzed a bike rental dataset to train regression models for predicting the number of bikes rented in a given time period based on weather and other temporal information.
- **Predicting Credit Default:** Developed and refined predictive models to forecast credit risks, significantly boosting credit risk management.
- **Graph-Based Node Classification:** Designed and enhanced a Graph Convolutional Network using PyTorch and Bayesian hyperparameter tuning to improve node classification accuracy.

## TECHNICAL SKILLS

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- **Languages:** Python, R, C/C++, ASP.NET MVC, C#, JavaScript, CSS, SQL, HTML, Java, Data Structure and Algorithm, NoSQL,
- **Tools and Technologies:** Visual Studio IDE & Code, Microsoft Azure, AWS S3, R-Studio, Jupyter Notebook, SQL Server, MongoDB, MATLAB, Power BI, Tableau, Altair, Matplotlib, NumPy, Seaborn, Scikit-learn, Pandas, PyTorch, Streamlit, Flask, Microsoft Office Suite.
- **Areas of Expertise:** Machine Learning, Data Visualization, Data Collection & Analysis, Data Manipulation, Predictive Modeling, Natural Language Processing.