# BAVYA SREE CHINNASAMY

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# EDUCATION

MASTER OF SCIENCE IN DATA SCIENCE | Bharathiar University | Coimbatore 84%

July 2023 - Present

BACHELOR OF SCIENCE IN MATHEMATICS | PSGR Krishnammal College for Women | Coimbatore

88.26% Sep 2020 - May 2023

#### SKILLS

**Languages**: Python, SQL, MATLAB, Cypher

o **Framework**: Pandas, Numpy, Scikit-Learn, Matplotlib, Tensorflow

o **Tools** : PostgreSQL, SPSS, Neo4j

o **Platforms** : Jupyter Notebook, Visual Studio Code

Soft Skills : People Management, Excellent communication

### PROJECTS

### BCG GenAI Job Simulation on Forage - May 2025

- Completed a job simulation involving AI-powered financial chatbot development for BCG's GenAI Consulting team.
- Gained experience in Python programming, including the use of libraries such as pandas for data manipulation.
- o Integrated and interpreted complex financial data from 10-K and 10-Q reports, employing rule-based logic to create a chatbot that provides user-friendly financial insights and analysis.

### Thorax Disease Detection Using Deep Learning Models

- Built a deep learning model using NIH ChestX-ray data for automated pulmonary disease classification.
- Designed and compared CNN and hybrid models (MobileNet/U-Net + Attention + Transformer) for improved accuracy and efficiency.
- Used Grad-CAM as a preprocessing step to convert images into heatmaps overlayed images, enhancing both model training and interpretability.

# **Diabetes Analysis And Prediction Using Python**

- Conducted exploratory data analysis (EDA) on a dataset of over 750 records, identifying key correlations between features like glucose, insulin, and BMI using correlation heatmaps and pair plots.
- Developed a Random Forest and Decision Tree classifier model achieving 100% accuracy on test data, providing reliable predictions for diabetes diagnosis using Python (scikit-learn, pandas, NumPy).

### EXPERIENCE

## AI AND CLOUD DATA SCIENCE INTERN

Edunet Foundation in Collaboration With AICTE

Virtual Internship

- Conducted hands-on investigations into IBM WATSON cloud solutions while collaborating with peers; developed innovative approaches that resulted in time savings equivalent to four hours per week throughout project execution.
- Developed an automatic image colorization system using deep learning techniques, leveraging
  OpenCV and a pre-trained convolutional neural network (CNN) to convert grayscale images to color images with 80% accuracy.

### MACHINE LEARNING INTERN

Feynn Labs | Virtual Internship

Aug 2022 - Oct 2022

June 2024 - July 2024

Engaged in the Following Projects:

- o Implemented market segmentation models to enhance user targeting and personalization.
- o Analyzed data to identify key customer segments for an online vehicle booking app.

## RESEARCH AND PRESENTATIONS

ICAC 2024 Conference | Department of Computer Science, Bharathiar University.

Sep,2024

Paper Title: "A Comprehensive Review of the Attention Mechanism in Deep Learning"

- Presented a comprehensive review of the attention mechanism and its applications in NLP, computer vision, and other domains which focused on the evolution of attention models, including Self-Attention and Multi-Head Attention.
- Discussed challenges, innovations, and future directions for attention mechanisms in deep learning architectures.

# CERTIFICATES

- Data Analytics with Python NPTEL | Issued Apr 2024
- Machine Learning for Data Science Projects IBMSkillBuilds | Issued Jun 2024
- Getting Started with Enterprise-grade AI IBMSkillBuilds | Issued Jun 2024
- Journey to Cloud: Envisioning Your Solution IBMSkillBuilds | Issued Jun 2024
- Python Project for AI & Application Development IBM | Issued Sep 2022
- Python for Data Science AI & Development IBM | Issued Sep 2022
- Data Science Methodology IBM | Issued Aug 2022