

# Dr. Pragati Hiwarkar

Data Science Professional

## Profile Summary

**Mentor IT** for DataScience , AI-ML & Cloud courses

**PhD** in Business Administration & Management.

**MBA (IT)** / MCM, MCA, MTech (IT)

**15 years** in Teaching and Software Development

## Skills

**Programming languages** : Python , MySQL, Java, C.

**Gen-AI/LLM** : Prompt Engineering , LLM , LlamaIndex

**Deep Learning** : ANN, CNN, Perceptron, RNN

**Natural Language Processing** : Word2Vec, NLTK, TFIDF, LSTM

**Machine Learning Frameworks** : NumPy, SciPy, Scikit-learn, Pandas, TensorFlow, PyTorch, Keras

**Visualization** : Matplotlib, Seaborn , Power BI , Tableau, Excel etc.

**Cloud platforms** : AWS, Google Cloud Platform

**Databases** : MongoDB, MySQL, Amazon S3

**Development environments** : Jupyter Notebook, PyCharm, Visual Studio Code, Flask

**Other tools** : Git, GitHub , Postman etc.

## Education Background

**Ph.D.** RTM Nagpur University, 2017.

**MCM (MBA IT) First Class (62%)**  
INDSEARCH, Pune University Pune,

**MCA** Punjab Technical University, 2013.

**M. Tech (IT)** KSOU University Mysore, 2011.

**BSc. First Class (74.66%)**  
Mahatma Phule College Warud, Amravati

## Research & Publication

- Chapter published in **SCOPUS INDEXED Book** : AI centric modeling and analytics .
- Chapter published in **SCOPUS & SCA Journal**
- **10+ research papers presented** in International / National conferences.
- Total **9 papers published**

## Project Work

- **GenAI:**
  - Developed "Helpmate AI" a Robust Generative Search System Capable of effectively and accurately answering questions from a policy document
  - It helped minimizing response time for customer queries and answering them in realtime about their queries on policy details and keep them engage
  - implemented the Retrieval Augmented Generation(RAG) system to create a generative search application for performing question answering on PDF documents from the insurance domain.
- **GenAI & Deep Learning:**
  - Developed a convolutional neural network (CNN) for automated brain tumor detection from MRI scans to assist in clinical diagnostics.
  - Designed a CNN architecture tailored for image classification, integrating convolutional layers for feature extraction and fully connected layers for classification.
  - Achieved significant accuracy in tumor classification, aiding in informed decision-making for treatment plans.

## Project Work

- **NLP : Text Summarization:**
- Developed robust preprocessing pipelines for literary data to ensure compatibility with Transformer-based models.
- Integrated trained models into production for scalable and efficient real-time text summarization, collaborating with engineering teams to optimize performance.
- Contributed to research initiatives exploring advancements in Transformer-based frameworks, leading to novel methods and strategies for text summarization.

## Experience Summary

### IT Mentor / Senior IT Faculty

Worked as mentor and teaching faculty for specialized courses of "iNurture Education Solution Pvt Ltd" for

- Ajeenkya D Y Patil University, Pune
- Nagindas Khandwala College , Mumbai
- Tilak Maharashtra University, Pune

Courses: AI-ML , DataScience , Cloud Technology  
Cyber Security etc.

Teaching experience in Python, NLP, DBMS, Flask ,Django etc.

- May 2016 to Nov 2017 & Dec 2020 to Feb 2024  
~ 4 Years

### Assistant Professor

B.P.H.E. Society's Institute of Management Studies,  
Ahmednagar

Worked as Assistant professor for MCA and MCM.

Covered subjects like Java , Android , SQL , DBMS ,  
Software Engineering , UML , C , C++ , ASP.Net etc.

-July 2008 to April 2016  
~8 Years

### Freelancing Project Work

Software Development : Developed Android app

Python Training : Conducted online lectures for  
Python

- Dec 2017 to Dec 2020

## Achievements

- Multiple appreciations for Mentorship Role
- Appreciation Certificate for outstanding contribution as a Faculty Coordinator.
- Winner of Intercollegiate seminar competition during graduation.
- Top Ranker in Graduation.

## How to reach me

### LinkedIn:

<https://www.linkedin.com/in/dr-pragati-hiwarkar/>

## Personal Details

D.O.B. : 7th July 1985

Blood Group : O +ve

Languages : English , Marathi , Hindi.

## Contact Details

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