

# ANKAN BERA

Ramakrishna Mission Vivekananda Educational and Research Institute , Belur

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LinkedIn

My Portfolio

My experience combines a strong foundation in applied mathematics with end-to-end development of AI and data systems. I excel at the intersection of theory and execution, moving fluidly from algorithm design to deployment.

## EDUCATION

Ramakrishna Mission Vivekananda Educational and Research Institute

2025 – 2027

Master of Science in *Data Science and AI* |

Belur

Midnapore College (Autonomous)

2022 – 2025

Bachelors of Science in *Computer Science* | CGPA : 7.63

Midnapore

## PERSONAL PROJECTS

AI-Powered SQL Chatbot for Easy Data Access | self

Nov.2025 - Dec 2025

- Developed an LLM-powered SQL chatbot using LangChain that lets non-technical users query databases in natural language and receive real-time results.
- Enabled non-technical teams (HR, Marketing, Operations) to access and analyze company data without writing SQL queries.
- **Tools:** Python, Langchain, OpenAI.

Synthetic Defect Image Generation using AI | Self

-2024

- **Objective:** Developed Synthetic Defect Image Generation for Low-Sample Datasets with Web App Platform
- **Approach:** Applied advanced generative models (**GAN, Diffusion**) to synthesize realistic defect images. Augmented the original defect dataset with generated images to improve classifier performance. Developed a full-stack web app to allow users to upload images, train models, generate defects, and download results.
- **Results:** Created defect images with 88% FID score, showing the images are realistic and high-quality.
- **Tools:** Python, Pytorch, Scikit-learn, NextJs, FastAPI.

Credit Risk Modeling using Machine | Self

-2024

- **Objective:** Built a credit risk prediction system to assess loan default probability using machine learning.
- **Approach:** Performed data preprocessing and exploratory analysis, then trained classification models to predict credit risk based on customer financial and behavioral data. Evaluated multiple models and selected the best-performing one using standard metrics.
- **Results:** Achieved reliable prediction performance, enabling accurate identification of high-risk and low-risk applicants.
- **Tools:** Python, Scikit-learn, Pandas, NumPy, Matplotlib.

## COURSEWORK / SKILLS

**Coursework:** Data Structure and Algorithm Using Python, Machine Learning, Deep Learning, NLP, Probability & Statistics, SQL.

**Languages:** Python, SQL, C, Java, JavaScript.

**AI Libraries/Frameworks:** PyTorch, Keras, NumPy, Pandas, Scikit-Learn, Matplotlib, Seaborn , Tensorflow.

**Web Technologies:** NextJS, FastAPI, Django , TailwindCSS.

**Databases:** MySQL , PostgreSql.

**Generative AI:** Langchain.

## EXPERIENCE

**Freelance Developer – E16 Classes:**

Sep . 2025

- Developed and maintained web-based educational tools and platforms.
- Implemented features for quizzes, student interaction, and content management

## ACHIEVEMENT

- **CUET-PG 2025 (Computer Science) – Qualified**
- Mentored 20+ students in cracking the entrance exams of RKMVERI.