Ankan Bera

Ramakrishna Mission Vivekananda Educational and Research Institute , Belur
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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 **Dec . 2025 - Jan . 2026**

- 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 | **Jan . 2026**

- **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 **Sep.2025**

- **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, HTML, CSS, JavaScript.
Databases: MySQL , PostgreSql.
Generative AI: Langchain.

EXPERIENCE

Freelance Developer – E16 Classes: **Sep . 2025**

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

ACHIEVEMENT

- **CUET-PG 2025 (Computer Science) – Qualified**
- Successfully designed and deployed multiple **web-based applications**, including a personal portfolio website and official team websites for college technical events.