

Ramandeep Bains

Manager Data Scientist at CEAT

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Experienced Lead Data Scientist with 5 years of hands-on experience in designing, developing, and deploying cutting-edge AI, machine learning, Generative AI solutions. Proven track record of leading teams to deliver high-impact projects in various domains. Skilled in algorithm development, model optimization, and scalable deployment. Passionate about leveraging AI/ML to solve complex problems and drive business success.

Work Portfolio: <https://ramandeep-bains.web.app>

EDUCATION

National Institute of Technology - Karnataka (Surathkal)

07/2015 – 07/2018

Master of Computer Applications

Lyallpur Khalsa college - Jalandhar

07/2012 - 05/2015

Bachelor of Computer Applications

EXPERIENCE

CEAT

january 2023

Manager Data Scientist

Leading a team of data scientists .Working on Generative AI solutions,Machine Learning , computer vision Predictive modelings

Generative AI Solution :

Designed, developed generative AI solutions. Hands-on experience with Large Language Models (LLMs), LangChain, and RAG .Proficient in fine-tuning models to achieve optimal performance and drive impactful results.

- Platform & Skill: LLMs,RAG, LangChain,LlamaIndex

Predictive Modeling Solution :

- Developed a computer vision system to detect tire balancing marks accurately and implemented an intelligent segregation mechanism for cases of incorrect pattern detection.Integrated real-time feedback for continuous system optimization
- Created predictive maintenance system for hydraulic curing machines. Uses predictive modeling and historical data to identify deviations, sending automated emails for attention and cycle time improvement.
- Platform & Skill: Machine Learning , Python, OpenCV, Predictive Modeling ,SMTP ,Telnet,plc,Raspberry Pi

Cortiq Health Pvt. Ltd.

March 2022 – May-2022

AI Engineer

Computer Vision Stress Detection App :

- Worked on computer vision to measure heart rate by analyzing color saturation changes caused by blood volume fluctuations.
- Detected stress levels by analyzing horizontal lines in LFA Device .
- Platform & Skill: Python, OpenCV, Flask, Android SDK, Java, Version Control: Github

Shanmukha Innovations Private Limited (Worked on Deep Learning Applications)

September 2020 – Feb 2022

Software Developer

Client: [Indian Institute of Science - Bengaluru](#)

AI/ML Research Assistant

- Collaborated with doctors and scientists on various AI/ML projects.
- Contributed to the development of innovative solutions for healthcare and research applications.
- Conducted experiments, analyzed data, and presented findings to the research team.
- Worked closely with interdisciplinary teams to integrate AI/ML technologies into existing systems.

E2Learn Hub

November 2019 - Present

Full Stack Android Developer

Project: SQLite Database Based Quiz App

Quiz App Project Video Link

This app helping students and professionals preparing for various competitive Exams and Job Interviews. It has 10,000 + downloads and has an overall 4.8 rating. Proficiently managed SQLite database. Efficient storage, retrieval, and manipulation of data. Employed advanced SQL queries and optimization techniques to handle large datasets effectively.

- App Play Store Link: <https://play.google.com/store/apps/developer?id=E2Learn+Hub>
- Platform & Skill: Java, SQLite, Android SDK

Syscloud Technologies PVT LTD

January 2018 - June 2018

Software Developer

Developed automated scripts for manual cases based on the requirement.

Platform & Skill: Java, Selenium

Role: Development, Testing

SKILLS

- Programming Languages: Python, Java, C++, SQL
- Frameworks/Libraries/Tools: Machine Learning, Scikit-Learn, LLMs, Langchain, NumPy, Pandas, NLTK, TensorFlow, PyTorch, Keras, Matplotlib, Docker, Gitlab, Deep Learning, Computer Vision, Sampling, Large-Scale Experimentation
- Cloud Platforms: AWS, Google Cloud Platform

CERTIFICATIONS

IBM Python for Data Science, AI & Development

June 2022

IBM

IBM Certificate Link:

<https://coursera.org/share/e41012a6eab557ced402e8b897979848>

Certified Data Scientist

June 2022

Simplilearn

Simplilearn Certificate Link:

https://certificates.simplipdn.net/share/3536063_1655448353.pdf

Machine Learning Certification

June 2022

Analytics Vidhya

Analytics Vidhya Certificate Link:

<https://courses.analyticsvidhya.com/certificates/pssrs01tqm>

PROJECTS

Monkey Pox Detector Web App (Deep Learning Project)

July 2022-Present

[Monkey Pox Detector Web App Video Link](#)

Monkey Pox Detector Web App helps to distinguish 'Monkeypox' cases from similar non-monkeypox cases. Along with the 'Monkeypox' class, the model included skin lesion images of 'Chickenpox'.

- **Platform & Skill:** Python ,CNN ,Tensorflow,Flask ,HTML,CSS,JS,Keras

Amount of Rainfall Prediction Model (Machine Learning Project)

June 2022-July 2022

The model predicts the amount of rainfall over a region. I used a Linear regression model for predictions. This dataset contains daily weather observations from numerous weather stations. The model output tells us how many inches of rainfall we can expect.

- **Platform & Skill:** Scikit-learn ,Python

SEMINAR

Meta Search Engine: Presented in front of NITK students and PhD scholars in presence of faculty members.

ACHIEVEMENTS

- Got 1st position in Debugging contest at UG level.
- Anchoring in Ambedkar Jayanti, NITK.

INTERESTS

Problem Solving, Competitive Programming