Roger Richard Demello

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SUMMARY

Aspiring software developer with strong expertise in C++ and Python, focusing on machine learning and AI, and hands-on experience building AI-driven healthcare and automation solutions, from data preprocessing and model development to deployment-ready applications.

WORK EXPERIENCE

CFM, RCOEM
Machine Learning Intern   *May 2025 - Jul 2025*
- Improved an ML-based tool to predict sleep disorders using lifestyle and health data.
- Achieved 87% accuracy by analyzing factors such as stress levels, sleep duration, and blood pressure.
- Used Python, Scikit-Learn, and Pandas for model development and data analysis.

PROJECTS

LifePulse - AI-Powered Health Analytics
Developer
- **Technologies**: Flask, Python, TensorFlow, Scikit-Learn, XGBoost, Pandas, Google Gemini AI, Rule-Based Engine
- Built ML-driven health modules (health score, heart disease, sleep disorder, migraine) and **a** nutrition tracker with actionable recommendations.
- Engineered ensemble models with a focus on accuracy and managed model artifacts and deployment using Render.
- Integrated rule-based logic and external LLM assistance for personalized recommendations and explanations.

ImageToToonArt - GAN / Photo-to-Cartoon Converter
Developer
- Transformed real-world photos into high-quality cartoon-style images across **ten** distinct styles.
- Built a production-ready web app and REST API with drag-and-drop uploads, real-time processing, and before/after comparisons.
- Enabled optional AI-powered style models and high-quality downloadable outputs for demonstrations and previews.

FinanceFlow - Personal Finance Assistant
Developer
- Implemented and deployed a machine learning pipeline for text classification using TF-IDF vectorization and Naive Bayes, achieving 90%+ accuracy on natural language expense data.
- Performed data preprocessing, feature engineering, model training, and evaluation for NLP-based expense categorization using real-world user inputs.
- Implemented model confidence scoring and inference optimization to improve prediction reliability and production ML performance.

SKILLS

Programming Languages: C, C++, Python, Java

Machine Learning & AI: CNN, RNN, Transformers, Prompt Engineering, TensorFlow, Keras

DevOps & Tools: AWS (EC2, S3, Lambda, IAM, RDS, CloudWatch, VPC), Git, GitHub, CI/CD

EDUCATION

Shri Ramdeobaba College of Engineering and Management
Bachelor of Technology in Electronics and Communication   *Graduation Date: May 2026*
Minor in Artificial Intelligence and Machine Learning   *Graduation Date: Dec 2025*

CERTIFICATIONS

- AWS Certified Cloud Practitioner - Amazon Web Services (Issued: October 2025)
- Introduction to Machine Learning on AWS - Coursera/AWS (Completed: July 2025)

ACHIEVEMENTS

National Cadet Corps, 2 MAH AIR NCC
Cadet
- NCC 'A' and 'B' Certificate holder.
- Currently serving as an active NCC Cadet.