Om Prajapati

+1(416)-768-6848 | prajapatiom185@gmail.com | linkedin.com/omprajapati/

OBJECTIVE

Seeking a Machine Learning Research Co-Op position to apply my skills in deep learning, computer vision, and model optimization while contributing to innovative AI research and real-world applications. Passionate about developing state-of-the-art computer vision solutions and deploying efficient models for scalable performance.

HIGHLIGHTS OF QUALIFICATIONS

- Proficient in designing and implementing data pipelines using Python, SQL.
- Experienced in applying machine learning frameworks like TensorFlow and Scikit-learn for predictive analytics and process optimization.
- Strong, and academic foundation in Artificial Intelligence Machine learning with hands-on experience in real-world projects.
- Demonstrated ability to optimize ETL processes for improved efficiency and scalability in diverse business environments.

SKILLS

Programming Languages: Python, C++, SQL, R, PySpark, SAS
Frameworks: Pandas, NumPy, Scikit-learn, TensorFlow, Keras
Computer Vision: OpenCV, YOLO, MediaPipe
Natural Language Processing (NLP): BERT, Transformer models, SpaCy, NLTK
Deep Learning Architectures: CNN, Transformer, GAN
Algorithms & Optimization: Dynamic Programming, Graph Algorithms, Parallel Computing
Software Engineering: Object-Oriented Programming (OOP), Design Patterns, SOLID Principles
Deployment: ONNX, TensorRT, Flask API
Soft Skills: Strong Communication Skills, Collaboration, Stakeholder Engagement, Problem-Solving

WORK EXPERIENCE

Machine Learning Research Intern

Imagicahealth – IT Solutions, Gujarat, India **Sept 2023 – Aug 2024**

- Researched and implemented computer vision techniques for image processing tasks.
- Developed deep learning models using PyTorch and TensorFlow for medical image analysis.
- Integrated YOLO and OpenCV for object detection in real-time applications.
- Optimized model inference for mobile devices using TensorRT and ONNX.
- Collaborated with cross-functional teams to improve ML models for scalability and real-world deployment.
- Developed C++ and Python-based ML models, optimizing real-time object detection.
- Implemented NLP techniques for text classification and sentiment analysis tasks.
- Applied solid software engineering principles (SOLID, OOP, design patterns) to enhance code maintainability.

PROJECTS

Real-Time Object Detection & Tracking System

- Designed a real-time object detection system using YOLOv8 and OpenCV.
- Trained the model on custom datasets and optimized it for edge devices.
- Implemented multi-object tracking for real-time analytics on live video feeds.
- Tools: Python, TensorFlow, OpenCV, PyTorch, Google Colab.

Face Recognition Attendance System

- Developed an automated attendance system leveraging face recognition technology to streamline and enhance the efficiency of attendance management processes. The system eliminates manual errors, prevents proxy attendance, and ensures accurate record-keeping.
- Implemented security features, such as data encryption and multi-factor authentication, to protect user data and ensure the system's integrity

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EDUCATION

Post-Graduate Diploma in Artificial Intelligence **Sep 2024 – Aug 2025**
George Brown College, Toronto, ON

- Designed and implemented an end-to-end AI solution, integrating data preprocessing, feature engineering, and model evaluation to enhance accuracy and efficiency.

Bachelor of Engineering in Computer science **June 2019 – May 2023**
GTU, Gujarat, India

- Conducted hands-on projects involving web development, integrating front-end and back-end technologies like HTML, CSS, JavaScript, and SQL to create dynamic applications.