SHRUTI MARY MATHEW
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Objective:

Passionate and results-driven Machine Learning Engineer with 2+ years of experience, proficient in Python, seeking to leverage expertise in developing codes and collaborating within teams to drive innovative solutions and optimize performance. Known for excellent time management and interpersonal skills.

Skills:

Experienced in:
- Programming languages - Python, C, and Java
- Libraries - Numpy, Pandas, OpenCV, Tensorflow, Pytorch, Regex, Scikit Learn, NLTK
- Tools - Git, Docker, MLflow, MLOPs
- Cloud Platforms – AWS, Azure
- Data preprocessing, data visualization, feature engineering, and handling large datasets.
- Strong understanding of machine learning and deep learning algorithms.

Experience:

Software Engineer (Machine Learning)   Jan 2024 – May 2024
Navtech
- Developed and implemented advanced machine learning models to assess the match percentage between resumes and job descriptions, streamlining the recruitment process for HR teams.
- Utilized natural language processing techniques and deep learning algorithms to enhance the accuracy and efficiency of resume screening, resulting in significant time savings and improved candidate selection outcomes.
- Collaborated with cross-functional teams to gather requirements, conduct data analysis, and deploy scalable solutions, contributing to the optimization of talent acquisition workflows and overall organizational efficiency.

Junior Machine Learning Engineer   April 2022 – Sept 2023
Qualitas Technologies Pvt Ltd [R&D department]
- Researched and implemented novel anomaly detection methods to address data hungriness issues and optimize training speed while maintaining high accuracy metrics.
- Developed robust backend codes for product EagleEye, an end-to-end machine learning product.
- Delivered successful projects focused on image classification, object detection, segmentation, and OCR (Optical Character Recognition).
- Reviewed code developed by other developers to ensure adherence to best practices, style guidelines, and code quality.
- Led design reviews with peers and stakeholders to evaluate and select appropriate technologies for project implementation.

Project Trainee   Jul 2021 - Dec 2021
Datamatics Global Services Limited
- Created efficient document classification codes for automated document processing.
- Acquired expertise in various image preprocessing methods through hands-on experience.

Research Experience:

One Class Classification for anomaly detection   2023
Qualitas Technologies Pvt Ltd – Research work
- Developed and evaluated a novel deep learning-based one-class classification model for anomaly detection.

- Conducted comprehensive experimentation and fine-tuning to optimize model performance and evaluate its robustness.
- Benchmarked the results on various datasets.

Object Detection in Satellite Images using Deep Learning   2021
National Institute of Technology Durgapur – Master's Thesis
- Developed a deep learning-based object detection system to identify ships in satellite images.
- Performed comparative analysis using three state-of-the-art models including YOLOv3, SSD, and FRCNN.
- Achieved the highest accuracy with the YOLOv3 model in terms of mean average precision (MAP) and inference time.
- Implemented image preprocessing techniques to enhance model performance.
- Conducted extensive experimentation and fine-tuning to optimize model performance.

Projects:
Object Detection model for card game   2024
- As part of Freelancing work in Upwork platform, created an advanced object detection model for a card game, enhancing gameplay by accurately identifying and classifying various cards in real-time.

End to End Text Summarizer   2023
- Developed a text summarization model utilizing the Hugging Face Transformers library, specifically leveraging the pretrained "Pegasus CNN Daily Mail" model. Github

Safe skull app using YOLOv8   2023
- Inspired by the new AI cameras implemented in Kerala for traffic rules regulations, attempted detection when travelers are not wearing helmet. Github

Voice Controlled Lift   2018
- Developed a lift model that can be controlled based on the voice instructions provided using Arduino. Github

Education:
MTech in Telecommunication Engineering   2022
National Institute of Technology Durgapur

BTech in Electronics and Communication Engineering   2018
Mahatma Gandhi University

Certifications:
- Project Management: Getting Started and Beyond/Real World Project Management
- Deep Learning with PyTorch: Image Segmentation
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization
- Complete Machine Learning by Udemy

Achievements:
- State Level ICSE Athletic Championship in the year 2013
- Qualified GATE twice in the year 2018 and 2019