

Job Description: AI Engineer with Extensive NLP Background

(Specializing in Object Detection and CCTV Live Captioning Systems)

1 Job Overview

We are seeking 4 talented AI Engineers with a strong background in Natural Language Processing (NLP) and expertise in object detection to join our innovative team as independent consultants. The successful candidates will play a key role in developing and deploying a cutting-edge CCTV live captioning system, enabling real-time transcription and scene description for enhanced surveillance and accessibility. This role requires a blend of advanced machine learning, computer vision, and NLP skills to deliver scalable and efficient solutions. As independent consultants, payments will be made in sprints or milestones based on project progress.

2 Key Responsibilities

- Design, develop, and implement a CCTV live captioning system to generate real-time captions and scene descriptions from live video feeds.
- Build and optimize NLP models for speech recognition, text generation, and contextual understanding to support accurate live captioning.
- Develop and fine-tune object detection models to identify and classify objects in CCTV footage, enabling detailed scene descriptions.
- Integrate NLP and computer vision pipelines to create a cohesive system that combines visual and textual data for comprehensive captioning.
- Collaborate with cross-functional teams, including data scientists, software engineers, and product managers, to ensure seamless deployment and performance.
- Optimize models for real-time performance, ensuring low latency and high accuracy in live environments.
- Conduct rigorous testing and validation of models to ensure reliability and robustness in diverse surveillance scenarios.
- Stay updated with the latest advancements in NLP, computer vision, and AI to incorporate best practices and innovative solutions.

3 Qualifications and Skills

3.1 Required Qualifications

- Bachelors or Masters degree in Computer Science, Artificial Intelligence, Machine Learning, or a related field.
- Extensive background in NLP, including proficiency with speech recognition, text generation, and language modeling (e.g., using BERT, GPT, or similar models).
- Good experience in building and deploying object detection models (e.g., using YOLO, Faster R-CNN, or SSD) for real-world applications.

- Proficiency in programming languages such as Python, and familiarity with libraries like TensorFlow, PyTorch, Hugging Face, and OpenCV.
- Strong understanding of deep learning architectures and their applications in both NLP and computer vision.
- Experience with real-time systems and optimizing models for low-latency performance.
- Excellent problem-solving skills and the ability to work independently as a consultant.

3.2 Preferred Qualifications

- Experience working on CCTV or video surveillance systems, particularly with live captioning or scene description.
- Familiarity with cloud platforms (e.g., AWS, Azure, Google Cloud) for model deployment and scaling.
- Knowledge of audio processing and Automatic Speech Recognition (ASR) systems.
- Prior work with multimodal AI systems combining vision and language.
- Contributions to open-source projects or publications in AI, NLP, or computer vision.

4 What We Offer

- Competitive compensation for independent consultants, with payments made in sprints or milestones.
- Opportunity to work on cutting-edge AI projects with real-world impact.
- Collaborative and innovative work environment.
- Flexible working hours and remote work options.

5 How to Apply

Interested candidates are invited to submit their resume and a cover letter detailing their background in NLP, object detection, and any relevant projects related to CCTV live captioning systems through the designated application portal. We are an equal opportunity employer and value diversity in our workplace.

Last Updated: May 14, 2025