Progyan Gupta

Software Developer - Computer Vision

https://github.com/Progress04

contact@progyan.dev
progyan.dev
https://www.linkedin.com/in/progyangupta/
+61431625841
Melbourne, Victoria

Software Developer focused on AI and real-time video analytics, with additional experience in NLP and deploying machine learning models. Experienced in delivering scalable, low-latency streaming solutions with high system reliability, supported by streamlined CI/CD processes and performance-driven system optimization.

Work Experience

Software Developer - Computer Vision   Nov 2022 - Present
TRU Recognition | Melbourne, VIC

Contributed to the core infrastructure of real-time inferencing pipelines in a fast-paced, dynamic environment. I was involved in both development and design across the entire stack, contributing to both development and design, and gained hands-on experience solving complex problems in real-time video analytics.

- Developed AI-powered video analytics pipelines for real-time processing, integrating object detection and classification features using multiple AI models to enhance latency, performance, accuracy, and resource utilization.
- Deployed object tracking and re-identification models across distributed systems, selecting optimal configurations for real-time applications
- Optimized AI models using NVIDIA Triton Inference Server, enabling scalable, high-performance inference for real-time applications in production. Evaluated popular AI models like PeopleNet and YOLO to determine the best fit for real-world applications
- Integrated real-time event processing using Kafka to improve system responsiveness
- Designed and deployed Kafka Connect pipelines using custom and pre-built connectors to integrate real time AI video analytics data with external endpoints
- Maintained high code quality through automated testing achieving 90% test coverage and reliable CI/CD deployments
- Handled RTSP video streams in AI-driven applications, ensuring low-latency processing and seamless continuous video handling

- Built automated CI/CD pipelines to automate build, test, and deployment processes, improving development efficiency and reliability.

Data Science Intern   Jan 2021 – Feb 2021

Indorama Ventures PCL | Melbourne, VIC

- Developed and deployed a natural language processing model for sentiment analysis, enhancing the accuracy and efficiency of customer feedback categorization
- Conducted benchmarking of state-of-the-art transfer learning models to identify the optimal solution for real-world application
- Integrated open-source NLP APIs(Hugging Face) to streamline deployment workflows and improve scalability
- Gained practical experience in production-level NLP, model evaluation, and end-to-end machine learning deployment

Core Skills

Languages: Python, R, SQL, GoLang, Javascript, C++
Frameworks & Tools: Gstreamer, Deepstream, Triton, Kafka, Git, Docker, Azure DevOps

Education

Monash University   Jul 2022
Bachelor of Computer Science Data Science
- Awarded silver in the annual Monash Datathon run by the Monash Data Science Society
- Chosen to represent Monash in a global datathon, competing with leading universities worldwide

Interests

Playing bass, Reading, Cooking at home, Watching and discussing films, Games