Astha Adhikari

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Summary

AI Engineer with a Master's in AI Software Studies and 4+ years of experience developing machine learning and generative AI solutions across research and industry. Specialized in Computer Vision, 3D object detection, LiDAR perception system, and transformer-based architectures, with experience in ROS-based robotics/embedded AI deployment. Experienced in building langchain agents and automation workflows using Large Language Models. Published researcher in image quality assessment, polyp segmentation, and AI super-resolution techniques. Proficient in PyTorch/TensorFlow with strong expertise in developing and deploying end-to-end AI systems.

Experience

Associate AI Engineer at BookedAI
Melbourne, Australia | May 2025 - Present

- Architected production-grade LangChain agents using RAG and Vector Databases; integrated MCP tools to automate booking workflows, resulting in a 40% efficiency gain and a significant reduction in API latency.

AI Perception Engineer at AR 24.7
Seoul, South Korea | September 2023 - October 2024

- Optimised 3D LiDAR segmentation models for edge deployment on NVIDIA Jetson using TensorRT; achieved a 70% increase in inference speed while maintaining high-fidelity detection for autonomous systems.

Graduate Research Assistant at Gachon University
Seoul, South Korea | September 2021 – August 2023

- Spearheaded research into Generative AI and Computer Vision using PyTorch, resulting in 3 peer-reviewed publications in Image and Computer Vision Journal and achieving improvement over baseline benchmarks in Image Computing.

Software Developer at Wiseyak Solution
Kathmandu, Nepal | April 2020 – August 2021

- Engineered a high-traffic Telemedicine platform and EMR system; integrated a custom NLP-based autocomplete feature using FastAPI, improving medical data entry speed by 40% while ensuring HIPAA-level data privacy.
- Architected a high-traffic Telemedicine platform and COVID-19 tracker to provide real-time health visualizations for active users.

Junior AI Developer at Mpercept Technology
Kathmandu, Nepal | June 2018 – July 2019

- Delivered production-ready AI applications, including Rasa-based conversational agents and Computer Vision tools for ICR and object localisation, resulting in a 60% reduction in manual data processing time.

References can be obtained upon request.

Publications

AM-BQA - ELSEVIER
Image and Vision Computing -Jul 2024
ASTHA ADHIKARI, SANG-WOONG LEE

POLYP SEGMENTATION
ICNGC 2022 Proceedings - Oct 2022
ASTHA ADHIKARI, SANG-WOONG LEE

AI SUPER-RESOLUTION
KING Spring Conference - May 2022
ASTHA ADHIKARI, SANG-WOONG LEE

Education

Master in AI Software
Sep 2021 – Aug 2023
Gachon University, S.Korea

Bachelor in Comp. Engineering
Oct 2014 – Jan 2019
Tribhuvan University, Nepal

Work Rights In Australia

Full-Time up to March 2028
(Graduate Visa- 485)

Languages

Nepali, English (7 in IELTS)

Other Experience

Mentor in Udacity Nanodegree Secure and Private AI Challenge.

Nanodegree Scholar in Computer Vision from Udacity.

Mentor in AIDevNepal Community.

Mentor in RAGA Girls in Technology.

Organizer in OKRP Conference.

Reached Level 2 in Gachon Global Leaders Toastmaster.