Kartik Aslia

Gurugram, IN | 91+ 7701923367 | asliakartik@gmail.com | LinkedIn | GitHub

EDUCATION

Chandigarh University **Mohali, Punjab**

Bachelors's of Engineering *Graduation Date: Jul 2026*

WORK EXPERIENCE

WanderMore AI **Remote, United Kingdom**

Machine Learning Engineer -INTERN *Aug 2023 - Jan 2024*

- Fine-tuned a Large Language Model (LLM) using Retrieval-Augmented Generation (RAG) and Self-RAG, resulting in a 35% increase in itinerary generation accuracy.
- Established a pipeline using Serper to connect LLM to the internet, enhancing search context by 47%.
- Developed and implemented a token cost logger feature, improving cost-tracking accuracy by 30%.
- Engineered prompt techniques to ensure chat responses were relevant and concise, increasing user engagement by 20%.
- I created a function to transcribe text to audio using Google TTS, increasing usability by 45%.

PROJECT EXPERIENCE

Fashion Image Generation Using GAN **Mohali, Punjab**

GANs, Fashion MNIST *Jun 2024 - Jul 2024*

- Trained a Generative Adversarial Network (GAN) to generate fashion images from random values using the Fashion MNIST dataset.
- Achieved a generator accuracy of 98.7% and a discriminator accuracy of 97.4%.
- Implemented a custom training loop for simultaneous training of both the generator and discriminator models.
- Trained the GAN on a dataset of 60,000 images, optimizing model performance and stability.
- Reduced training time from 3.6 days to 33 hours through efficient use of computational resources and optimization techniques such as batch processing and GPU acceleration.

Hybrid Model Architecture for Position Estimation **Mohali, Punjab**

ANN's & RNN's Hybrid Model *Feb 2024 - Mar 2024*

- Developed a hybrid model combining Dense and LSTM layers for accurate 3D position prediction of ballistic projectiles with an accuracy of 99.6%.
- Improved model accuracy from 45% to 99.6% using features including Speed, Pressure, Mass, Thrust, Atmospheric Density, Orientation (1, 2, 3), and Time.
- Performed Exploratory Data Analysis to train the model to get the best features from the available 24 features.
- Applied z-score normalization and efficient data handling techniques, increasing model accuracy from 46% to 95.4%.
- Integrated GPU support for model training, significantly reducing computation time from 3 days to 33 hours and enhancing training efficiency.

Satellite Image Processing forRoad Extraction **Mohali, Punjab**

CNN's, UNET *Sep 2023 - Oct 2023*

- Developed a U-Net model for road extraction from satellite images, achieving an accuracy of 99.4%.
- Implemented efficient data loading functions, showcasing proficiency in data handling and preprocessing.
- Constructed a comprehensive data pipeline covering data loading, model training, prediction, and post-processing.
- Enhanced the clarity of extracted roads by 56% through sharpening and contrast adjustment techniques.
- Leveraged TensorFlow, OpenCV (cv2), and CUDA for model development and data processing, reducing training time by 93%.

LEADERSHIP EXPERIENCE

KCCRST **Chandigarh University**

Team Lead - Team Phoenix & IEEE WIE *Aug 2023 - Jan 2024*

- Led a team of data scientists and engineers, enhancing team dynamics and productivity by 25%.
- Spearheaded the implementation of machine learning algorithms at KCCRSST, resulting in a 40% improvement in operational efficiency metrics.
- Successfully facilitated sponsor meetings at IEEE Women in Engineering, leading to a 15% increase in business partnerships and collaboration funds.

SKILLS & INTERESTS

Skills: Python, JavaScript, LangChain, Numpy, Pandas, TensorFlow, Machine Learning(*Supervised, Unsupervised, Reinforcement*), DeepLearning(ANNs*, CNNs, LSTMs*) Artificial Intelligence(*Transformers*), Data Structures, Database Management (*MongoDB & PostgressDB*), Middleware Development, Data Analytics, Git, GitHub, Public Speaking, Resilience.

Interests: Machine Learning, Artificial Intelligence, Operational Efficiency, Industry Trends, Technological Advancements, Satellite Image Processing, AeroSpace, and Communication Technologies.