Akshay Atam

Jersey City, NJ | P: +1 (551) 430-9756 | akshay.atam@gmail.com

EDUCATION

STEVENS INSTITUTE OF TECHNOLOGY — Hoboken, NJ
Master of Science in Machine Learning — Expected May 2024
Cumulative GPA: 3.963/4.0
Relevant Coursework: Computer Vision, Text Mining, Deep Learning, Natural Language Processing

ARIZONA STATE UNIVERSITY — Tempe, AZ
AI and Machine Learning MasterTrack Certificate (Online) — Oct 2021 – Mar 2022
Cumulative GPA: 3.56/4.0
Relevant Coursework: Artificial Intelligence, Statistical Machine Learning, Knowledge Representation

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY AND MANAGEMENT — Gwalior, India
Integrated Post Graduate in BTech (IT) and MTech (IT) — Jul 2016 – Jun 2021

UNIVERSITY PROJECTS

MACHINE TRANSLATION — Nov 2023
- Deployed a state-of-the-art Machine Translation model utilizing the IWSLT 2017 dataset, leading to a significant enhancement in translation quality and facilitating seamless language conversion between English and French.
- Led the successful adoption of Microsoft's 'torchscale' library's RetNet, a groundbreaking decoder architecture, implementing multi-scale retention techniques. Accomplished a 15% improvement in translation efficiency, leading to enhanced productivity and cost savings.
- Aimed to improve translation accuracy and reduce training time; attained a BLEU score of 36.41, indicating a high-quality translation output and a 32% reduction in training time compared to the standard transformer model.

HATE SPEECH DETECTION — Oct 2023
- Developed and implemented a hate speech detection system leveraging a proprietary dataset, 'HateModerate', aligned with Facebook community guidelines; achieved 91.9% accuracy in identifying and filtering out offensive content, ensuring a safer online community.
- Integrated OpenAI's moderations API to detect hate speech, delivering an impressive accuracy rate of 83.94% and safeguarding online platforms from harmful content.
- Created and deployed cutting-edge NLP algorithms to combat hate speech, realizing an 8% performance gain over machine learning models and a remarkable 22% accuracy enhancement with the API approach.

MULTI VIEW PATCH MATCH — May 2023
- Crafted a Python implementation of the PatchMatch Algorithm, enabling generation of precise depth maps from selected images, including those from the renowned Stretcha MVS dataset.
- Systematically chose three images from each dataset/scene and iteratively improved depth maps while continuously monitoring progress through visual tracking.
- Evaluated algorithm performance by conducting a comprehensive analysis of generated depth maps to ground truth data; identified areas for improvement and obtained a 15% increase in accuracy.

TECHNICAL SKILLS

Languages: Python (Proficient), C++ (Competent), SQL (Competent), Golang (Familiar)
Machine Learning Frameworks: Tensorflow, Keras, Pytorch
Web Development Tools: Github, VS Code, Google Cloud Platform

CERTIFICATION

DATABRICKS CERTIFIED ASSOCIATE DEVELOPER FOR APACHE SPARK — Dec 2023
- Demonstrated proficiency in Spark DataFrame API, data manipulation, and understanding of core Spark architecture using Python.
- Secured 81.66% in the Databricks Spark certification, evidencing ability in data operations, Spark SQL functions, and DataFrame management in Python environments.