

Ayan Debnath

+91 9874703747 | mailtwoayan@gmail.com | Kolkata, West Bengal

Summary

Enthusiastic Artificial Intelligence engineer seeking to deliver state-of-the-art AI solutions. 2.5+ years of industry experience in Deep Learning based framework design, development and deployment. Experienced in NLP, OCR, Computer vision & building complex neural networks.

Skills

Key Skills: Document Digitization, Optical Character Recognition, Natural Language Processing (NLP), Computer Vision, Object Detection (YOLO), Handwritten Text Recognition

Interests: Generative AI, Large Language Models (LLM), AI Hardware Optimization

Programming Languages: Python, Java

Packages: Transformers, PyTorch, TensorFlow, Keras, NLTK, ONNX, OpenCV, Flask, Tesseract, Paddle OCR, EasyOCR

Tools: Jenkins, WildFly, Gunicorn (WSGI), Anaconda, Apache Maven, SonarQube, Tesseract, PDFBox

Database: MySQL

Operating System: Linux (Ubuntu, RHEL), Windows

Version Control System: Apache Subversion

Soft Skills: Problem-solving, Time management, Adaptability

Experience

Tata Consultancy Services Digital (iON) | Kolkata, West Bengal

Artificial Intelligence Engineer | 08/2020 - Present

- Participated in OCR, Computer Vision and NLP projects to solve real-life problems with state-of-the-art algorithms like YOLO, BERT, T5, Paddle, LLMs.
- Developed functionality to detect and extract information from variety of Govt. ID card images or PDFs using Object detection and OCR with 82% accuracy.
- Engineered Semantic Similarity Analysis between Sentences using Universal Sentence Encoder and Transformers model.
- Designed Customer Feedback Survey Analysis (Verbatim) from customer reviews using Sentiment/Emotion analysis, Semantic similarity and Keyword extraction.
- Developed Automated Question Generation feature to generate MCQ, FAQ, True-False questions from a contextual paragraph or article.
- Worked on Multilingual Machine translation API to translate between English, Hindi, Spanish etc.
- Optimized variety of PyTorch, Keras, TensorFlow models using Quantization and ONNX conversion techniques to reduce production cost and improve scalability.
- Developed and deployed multiple scalable, synchronous & asynchronous Deep Learning models.
- Developed ML frameworks and exposed REST APIs using Java, Python, Flask and Gunicorn WSGI server.
- Mentored and groomed two ML engineers in the project in the field of Text Analytics.

Tata Consultancy Services (iON) | Kolkata, West Bengal

Machine Learning Intern | 01/2020 - 04/2020

- Gained expertise in several domains of NLP like stemming, lemmatization, LSTM, GRU, Attention mechanism, Sentiment Analysis etc.
- Engineered Emotion analysis feature from Text classifier to classify using Bidirectional LSTM and Attention mechanism.
- Gathered knowledge about ML pipelines and production deployments of deep learning models.

Education

Institute of Engineering and Management | Kolkata
Bachelor of Technology (Information Technology) | 06/2020

- DGPA : 9.29
- Departmental Topper in Information Technology.

Ramakrishna Mission, Rahara
Higher Secondary (Science) | 06/2016

- Grade: O (90.83%)

Languages

English, Hindi, Bengali

Certifications

- **IBM AI Engineering**

Completed 6 course professional certificate authorized by IBM Skills Network regarding Machine learning, Deep Learning, Computer Vision, Keras, TensorFlow, PyTorch and one capstone project.

- **Python for Computer Vision with OpenCV and Deep Learning**

Comprehensive course for Computer Vision using basics of OpenCV and Neural Networks.

Achievements

- Innovation Superstar Award from TCS IOTDE for winning Machine Learning based hackathon.
- On The Spot Award from TCS iON for extraordinary performance.
- Learning Achievement Award from TCS Talent Development team.
- Departmental Topper in Institute of Engineering and Management, Kolkata.