SASWATA KUMAR DASH

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EDUCATION

Vellore Institute of Technology Chennai, Chennai, Tamil Nadu 2021-2025
Bachelor of Technology in Computer Science and Engineering (Cyber-Physical System) *CGPA: 8.49*

ODM Public School, Bhubaneswar, Odisha 2021
12th Std CBSE, PCM *Percentage: 82.83*

EXPERIENCE

Tomas Bata University in Zlín | Experience Certificate May 2024 – July 2024
Artificial Intelligence Research Intern *Zlín, Czech Republic, Europe*
- Engaged in a prestigious international internship under the mentorship of Prof. Roman Senkerik, Head of A.I. Lab.
- Developed a fine-tuned Llama 2 Model for enhancing the performance of AI algorithms like meta-heuristics, evolutionary algorithms, etc., and curated datasets for fine-tuning from scratch.
- Explored advanced hyperparameter tuning frameworks and benchmarking randomized optimization algorithms.
- Gained hands-on experience working with the OpenAI API and also did research on how to build LLMs in detail.

Teralumen Solutions Pvt Ltd | Experience Certificate August 2023 – December 2023
Artificial Intelligence in Biotech Intern *Chennai, Tamil Nadu, India*
- Developed AI algorithms for cancer margin detection using Terahertz measurements.
- Enhanced algorithms with OpenCV and other tools.
- Implemented CNN model with 92%, Random Forest Model with 88%, and SVM Model with 87% accuracy.
- Curated datasets from scratch for robust model training.
- Gained AI field experience through collaboration and knowledge-sharing.

PROJECTS

Bilingual Text OCR to Audio Speech | *Python, FastAPI, CRNN, gTTS, HTML, CSS, JavaScript* | Website Link | Project Link
- Research Paper **Published in IEEE Xplore** on the findings of this project: **IEEE Paper Link**.
- Developed a full-stack application to convert handwritten Tamil and English text into speech using a CRNN (Convolutional-Recurrent Neural Network) model using LSTM and GRU with 92% and 95% accuracy.
- Featuring trackpad input, camera capture, and image upload for OCR, utilizing gTTS for audio speech.

Bigram GPT | *Python, PyTorch, Neural Network, Kaggle, LLM, Jupyter Notebook* | Explanation Video Link | Project Link
- Incorporating an external bigram language model by 25% Enhancements.
- Designed an enhanced version of Bigram Language Model, showcasing the power of AI and neural networks with a 20% improvement from the previous model.

TECHNICAL SKILLS AND INTERESTS

Languages and Frameworks: Python, SQL, C/C++, Java, Next.Js, FastAPI, React
Technologies: Jupyter Notebook, OpenCV, LLMs, TensorFlow, PyTorch, Large Conceptual Models, Neural Networks
Areas Of Interest: Generative Artificial Intelligence, Deep Learning, Machine Learning, Artificial Intelligence, NLP
Soft Skills: Communication, Collaboration, Teamwork, Problem Solving

ACHIEVEMENTS AND CERTIFICATIONS

- Presented research paper titled ”**Multi-Lingual Handwritten Recognition using Convolutional Recurrent Neural Networks**” in the **IEEE Technical Sponsored** International Conference (**ICSES-2024**) : **Certificate**
- Received **Professional Training certification in Python and Machine Learning** from IIT Kharagpur : **Certificate**
- Access to Other Certifications : **Certificates**