SEHASTRAJIT S

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EDUCATION

VIT University, Chennai, Tamil Nadu

2025

- Btech CS with Spec. Artificial Learning and Machine Learning
- Relevant Coursework: Deep Learning, Machine Learning, Computer Vision, Natural Language Processing, Data Structures and Algorithms, Artificial Intelligence, Big Data Analytics

Maharishi Vidya Mandir, Chennai, Tamil Nadu

2021

Awards: 1st and 2nd Student of the Year nationally (USA Uniquest 2017 and 2018)

WORK EXPERIENCE

Auburn University, Summer Research Intern, Chennai, Tamil Nadu

August 2023 – Jan 2024

- Developed deep learning models and performed data analytics.
- Supervisor: Dr. Sathyanarayanan N. Aakur, Department of Computer Science and Software Engineering.

Centre for Healthcare Advancement, Innovation and Research, Chennai, Tamil Nadu

2022-2023

Summer Research Intern (June 2022 – August 2022)

• Applied deep learning models to diagnostic applications in healthcare.

Summer Research Intern (June 2023 – August 2023)

• Explored healthcare analytics, transfer learning models, and GPT models.

PROJECTS & LEADERSHIP EXPERIENCE

Data Manager AI, Independent Project

June 2024

- Developed a data analysis and management tool using the Gemini API.
- Streamlined CSV file analysis with insightful preprocessing steps and relevant code snippets.
- Integrated the tool into a user-friendly Streamlit app for accessibility across all technical backgrounds.

SignGuard: YOLO-Powered ASL Detection API, Independent Project

Dec 2023

- Developed a custom YOLO v5 model for real-time ASL alphabet recognition via webcam, achieving high accuracy in sign language detection.
- Created a responsive Flask app with Bootstrap, enabling real-time ASL detection through a secure web interface.
- Leveraged Python, PyTorch, OpenCV, and Flask for object detection, real-time video processing, and web integration, optimizing for performance and usability.

Publications. Researcher. Chennai. Tamil Nadu

2023-2024

- S. Sehastrajit, et al., "Pipelined Structure in the Classification of Skin Lesions Based on Alexnet CNN and SVM Model with Bi-Sectional Texture Features," IEEE Access, April 11, 2024.
- S. Sehastrajit, et al., "Comparative performance of deep learning architectures in classification of diabetic retinopathy," International Journal of Ad Hoc and Ubiquitous Computing, September 8, 2023.
- S. Sehastrajit, S. Aakur, "Advances and future perspectives in Parkinson's disease detection techniques," Evolutionary Intelligence, July 8, 2023.

TECHNICAL SKILLS

- Computer Languages: Python, Java, C, C++, LabVIEW, MatLab, PHP, SQL, HTML, CSS, XML.
- *Tools:* Keras, TensorFlow, PyTorch, Git, Docker, Flask, Streamlit, OpenCV.
- *Skills:* Machine Learning, Deep Learning, Natural Language Processing, Big Data Analytics, Data Visualization, Cloud Technologies (Azure, Google Cloud), Real-Time Video Analysis, Web Application Development.
- Interpersonal Skills: Team Leadership, Project Management, Presentations, Statistics, Dataset Management.