

Sai Vignesh S

B.Tech Artificial Intelligence and Machine Learning
Hindusthan College Of Engineering and Technology

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GitHub Profile

LinkedIn Profile

EDUCATION

• Bachelor of Technology in Artificial Intelligence and Machine Learning	2020-24
Hindusthan College Of Engineering and Technology	CGPA: 9.2
• HSC	2019-20
Premier Vidhya Vikhas	Board Exam
• SSLC	2017-18
.K. Sree Rangammal Kalvi Nilayam	Board Exam

PERSONAL PROJECTS

• Article Validation using Semantic Analysis	Oct 2024
Semantic analysis system to validate articles against sector-specific datasets.	
– Utilized pg_vector and Sentence Transformer BERT model for article analysis and classification.	
– Identified article relevance by comparing with sector-specific datasets to classify as valid or invalid.	
– Technology Used: Python, PostgreSQL, pg_vector, BERT, Semantic Analysis.	
• Events Classification ML Script	Sep 2024
ML-based classification system for event categorization using DistilBERT.	
– Populated event categories and sub-categories based on event name, description, and source URL.	
– Achieved 85% accuracy in classifying events into correct category and sub-category.	
– Technology Used: Python, DistilBERT, Machine Learning, NLP.	
• Hotels Information using LLM	Feb 2024
Web scraping and LLM-based data processing system for hotel information.	
– Scraped data from URLs and stored in MongoDB collection for processing.	
– Utilized LLM with Ollama in Python to display and analyze hotel details.	
– Technology Used: Python, MongoDB, LLM, Ollama, Web Scraping.	
• Face Based Attendance Detection System	June 2022
Automated attendance system using facial recognition with YOLOv3.	
– Automates student attendance by recognizing faces using YOLOv3 algorithm.	
– Maps students' faces by comparing with stored images, achieved 77% accuracy rate.	
– Technology Used: Python, YOLOv3, Computer Vision, Deep Learning.	
• QA Automation Script	
Automated quality assurance script for data validation.	
– Cross-checks website data with MongoDB collection fields and alerts on mismatches.	
– Runs periodically using Selenium bot automation for continuous monitoring.	
– Technology Used: Python, Selenium, MongoDB, Automation.	

EXPERIENCE

• Jr. Data Engineer	Sep 2024 - Present
Full-time Position	Aggregate Intelligence
– Started as Junior Data Engineering Intern and transitioned to Junior Data Engineer role.	
– Skilled in MSSQL Server, MySQL, PostgreSQL, MongoDB, and Python automation.	
– Experience in Database Migration, Optimization, Elasticsearch, Backup/Restore, and Bash Script Automation.	
– Expertise in Semantic Analysis and Vectorization for database tasks, leveraging pg_vector for similarity searches.	
– Data Analysis: Validating articles through semantic analysis, predicting event categories and sub-categories.	
– Strong understanding of pipeline automation and data analysis, driving efficient data flow across platforms.	
• Data Science Intern	July 2023 - August 2023
Remote Internship	Bharat Intern
– Gained understanding of data science concepts and completed multiple data science projects.	
– Developed Titanic Survival Prediction ML model and Handwritten Text Classification model.	

•Python Intern

Internship Program

March 2023 - April 2023

Pantech E learning - Naan Mudhalvan

- Participated in Python internship and hackathon organized with Naan Mudhalvan and STEP NITK.

•AICTE Java Intern

AICTE Partnership

Jan 2023 - Feb 2023

JT Wisdom Technology Private Limited

- Learned core Java concepts in association with AICTE.
- Received internship certificate after clearing the Java exam conducted.

•Embedded Intern

Internship

Nov 2021 - Dec 2021

New Qbitronics

- Gained experience with GCC platform for Wi-Fi controller project and Wi-Fi mobile starter.
- Worked on RTOS, Raspberry Pi OS installation, and microprocessor setup for embedding automatic tasks.

TECHNICAL SKILLS AND INTERESTS

Languages: Python, Java (Basics), SQL

Databases: PostgreSQL, MSSQL Server, MySQL, MongoDB, Elasticsearch

Tools & Technologies: AWS S3, pg_vector, Selenium, Git, Bash Scripting, Excel Automation

ML/AI Technologies: DistilBERT, BERT, Sentence Transformers, YOLO, Ollama, LLM

Specializations: Data Engineering, Database Migration & Optimization, Semantic Analysis, Vectorization, NLP

Relevant Coursework: Data Structures & Algorithms, Database Management Systems, Machine Learning, Artificial Intelligence, Big Data Solutions.

Areas of Interest: Data Engineering, Machine Learning, AI, Database Optimization, Automation.

Soft Skills: Problem Solving, Team Collaboration, Self-learning, Project Management, Adaptability

ACHIEVEMENTS

•**Techgium 6th Edition Hackathon Semi-Finalist** Qualified for 2nd round (Semi-Finals) by L&T Technology Services a

•**NPTEL Social Network Exam** Achieved Elite Silver certification and Topper recognition 2023