

Sai Vignesh S

B.Tech Artificial Intelligence and Machine Learning
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🐙 GitHub Profile

🌐 LinkedIn Profile

EDUCATION

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|---------------------------------------------------------------------------------|------------|
| • 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

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| • 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

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|----------------------------------------------------------------------------------------------------------------------|-------------------------|
| • 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), Mysql, Postgres, MSSQL Server, MongoDB, Elasticsearch

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

Year: 2024

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

Year: 2023