

Sathiya Narayanan Venkatesan

sathiyavenkat06@gmail.com ❖ (919) 559-6057 ❖ [Portfolio](#) ❖ [linkedin.com/in/sathiya06](#)

EDUCATION

North Carolina State University

Aug. 2023 – May. 2025

MCS, Computer Science

Raleigh, NC

- Coursework: Algorithms, Neural Networks, Cloud Computing, Compiler Construction; 4.0/4.0 GPA

Anna University

Aug. 2019 – Apr. 2023

BE, Computer Science Engineering

Chennai, India

- Coursework: Artificial Intelligence, Operating Systems, Data Structures, DBMS; 9.3/10 GPA

TECHNICAL SKILLS

- **Languages** : Python; Java; SQL; Golang; JavaScript; Git; C/C++;
- **Frameworks & Tools** : Spring Boot; React JS; Flask; Docker; Kubernetes; Linux; Ansible; SonarQube;

WORK EXPERIENCE

Zoho Corporation

Jul. 2022 – May. 2023

SDE Intern

Chennai, India

- Designed and developed a bug reporting web application by incorporating an **open source** library called FFMPEG to add video and audio editing features resulting in an increase in user satisfaction by 15%.
- Managed and streamlined complex **data workflows**, implementing robust data validation and transformation processes to ensure data quality and consistency.
- Innovated video storage by asynchronously storing the recorded video chunks in a **NoSQL** database, enabling faster and more efficient access, while also encrypting the video chunks to enhance security.
- Conducted extensive analysis of the software supply chain, utilizing static and dynamic application security testing tools such as **ZAP**, resulting in a 40% reduction in high-severity vulnerabilities.

PROJECTS

SWAY | *Artificial Intelligence*

- Improved an active learning **surrogate model** by adeptly updating the learner for every new data instance and yielding results, either rivaling or aligning with state-of-the-art techniques.
- Synthesized datasets for the above learner to enable it to perform different ML tasks such as NLP, HPO.

Slash | *Python, Java Script, PostgreSQL*

- Built a web application that scrapes the most popular e-commerce websites using **beautiful soup** package.
- Resolved challenges related to data consistency, resulting in a 20% improvement in data accuracy.

Mapease | *Java, Spring Boot, Angular, SQL*

- Streamlined monitoring of seasonal disease spread by tracking the movement of the livestock.
- Spearheaded a web application with a Spring Boot backend using JPA for data persistence and an Angular frontend featuring interactive maps built with the **Leaflet** module in Angular.

IntelliChat | *Langchain, OpenAI, RAG, Vector Database*

- Developed a Retrieval-Augmented Generation based chatbot powered by OpenAI's GPT model, which uses a vector database to enhance search and response capabilities.
- Built a text processing pipeline utilizing RecursiveCharacterTextSplitter and OpenAI embeddings to process large text files, allowing seamless handling and querying of data.

OpenEMR | *Open Source Contribution*

- Identified and fixed bugs in the health record management system, both through exploratory testing and by resolving issues listed in the repository.
- Improved application security by assessing its adherence to OWASP ASVS standards, raising security concerns for non-compliance, and documenting associated CWE references for identified vulnerabilities.

CERTIFICATION & LEADERSHIP

- **AWS Certified Solutions Architect – Associate**: Dynamo DB, Athena, Sage Maker, Step Functions, API Gateway.
- **Maitri Indian GSA**: Vice President, organized programming competitions and hackathons.