

# VAMSHI KRISHNA MADHAVAN

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## Objective

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An enthusiastic and adaptable professional with almost 3 years of experience, eager to contribute as a versatile technologist, leveraging analytical acumen and methodical expertise to drive impactful solutions. Seeking opportunities to collaborate within a dynamic team environment, aligning with the company's objectives while upholding its vision, mission, and core values.

## Professional Experience

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**SOFTWARE ENGINEER**  
EXPERIAN

**APR 2021 – JAN 2024**

### Key Responsibilities :

- Contributed towards the core project (Verification Batch), which provides Verification Reports as a service to major clients such as Bank of America and American Express, processing large consumer data populations. Developed a Batch Microservice-Based Application using Spring Boot and Spring Batch, integrating various AWS services such as S3, EC2, and ECS. Played a critical role in increasing application TPS (Transactions per Second) by 700% within three weeks.
- Contributed, led the project, and played a significant role in the 12-week migration of a Batch-Based Microservice application to Big Data, enhancing its performance tenfold using PySpark
- Contributed towards the core project (CensusHub), a secure data warehouse containing employer income and employment information from various data providers. Primary responsibilities included ingesting millions of records daily and providing quick turnaround times for employer data searches based on SSN. Developed a Big Data Application using Java, Airflow, Redis, and various AWS services such as S3, EC2, and EMR.

**SOFTWARE ENGINEER INTERN**  
COGNITREE

**JAN 2021 – MAR 2021**

**Key Responsibilities:** Acquired in-depth familiarity with Software Development Life Cycle (SDLC) with High-level Design through practical problems by working with different frameworks, libraries and APIs.

**PROJECT INTERN**

Electronics Corporation of India Limited

**JUN 2019 – JULY 2019**

**Key Responsibilities:** Developed a real-time CRUD application for managing hospital operations, employing MVC architecture with JSP.

## Skills

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**Programming Languages:** C, Java, Python, SQL, JSP and PHP

**Frameworks & Libraries :**

- *Web and Application Frameworks:* Restful Web Services, GraphQL, Spring Boot, Spring Batch, Spring Data JPA, Spring JDBC, Flask, Streamlit
- *Big Data and Data Processing:* Apache Airflow, Apache Spark, PySpark, Apache Kafka
- *Machine Learning and Deep Learning:* TensorFlow, Keras, PyTorch, NumPy, Pandas, scikit-learn

**Front-End Technologies:** HTML, CSS, JavaScript, jQuery

**Cloud and Infrastructure:**

- *Amazon Web Services (AWS):* S3, EC2, ECS, EBS, EFS, EMR, STS, ELB, ASG, Lambda, DynamoDB, RDS, SQS, SNS, Sagemaker, CodeDeploy, CloudWatch

**Caching Services:** Redis, Memcache, Ehcache

**Databases:** MySQL, PostgreSQL

**Source Control and CI/CD Tools:** Git, Bitbucket, JIRA, Jenkins

## Education

### UNIVERSITY OF HOUSTON

MASTER OF SCIENCE, DATA SCIENCE: **3.67/4**

JANUARY 2024 – PRESENT

### MALLA REDDY ENGINEERING COLLEGE

BACHELOR OF TECHNOLOGY, COMPUTER SCIENCE: **9.36/10**

JUNE 2017 – JULY 2021

## Certifications & Achievements

- AWS Certified Solutions Architect – Associate : Amazon Web Services (AWS), June 2024
- Achieved Google Cloud's "Architecting with Google Computer Engine" Specialization, showcasing expertise in cloud architecture.
- Certified by HackerRank and Udemy in Java, Python, and Apache Airflow, illustrating mastery in cutting-edge technologies.
- Certified in C and Data Structures through the QEEE program by IIT-Madras, highlighting academic excellence.
- Recognized as a Semi-Finalist in TechGig Code Gladiators'2020 competition, outperforming 2.5 lakh participants.
- Engaged in immersive learning experiences with industry giants like JP Morgan and Goldman Sachs through Virtual Experience Programs.
- Actively contributed to open-source projects during HacktoberFest 2019 and 2022, demonstrating dedication to community and skill enhancement.
- Recognized with the Experian Spot Award for fostering collaboration with product stakeholders, driving impactful outcomes.

## Projects

- **VOCALVERSE** | PYTHON
  - Developed and published a PyPI package offering text translation, speech synthesis, and audio transcription using Python, OpenAI Whisper, and Google Text-to-Speech.
- **MULTILINGUAL AI CHATBOT WITH TEXT AND VOICE INTERACTION** | PYTHON
  - Developed a multilingual chatbot using LLaMA3, OpenAI, and advanced Python functionalities, supporting both text and voice interactions for seamless user experiences.
- **ROMA MART** | HTML, CSS, JAVASCRIPT, JQUERY, PHP, MYSQL
  - Executed a freelance project to develop an interactive retail store management system. Deployed real-time inventory and sales management features to streamline operations.
- **TIME SERIES MINING APPROACH FOR AGRICULTURE AREA DETECTION** | PYTHON, MACHINE LEARNING
  - Devised a framework using Active Learning (AL) for time series crop monitoring. Leveraged seasonal time series data to enhance agricultural oversight and precision.
- **ANALYSIS OF CLICKSTREAM DATA FOR ONLINE SHOPPING** | PYTHON, MACHINE LEARNING
  - Conducted a comprehensive analysis of clickstream data from an online clothing retailer using machine learning. Evaluated consumer behavior patterns across Europe to inform and optimize e-commerce strategies.
- **HOSPITAL MANAGEMENT SYSTEM** | HTML, CSS, JAVASCRIPT, JQUERY, PHP, MYSQL
  - Developed a robust CRUD application for hospital management. Integrated modules for patients, doctors, receptionists, and administrators to enhance operational efficiency.
- **URL SHORTEN SERVICE** | HTML, CSS, JAVASCRIPT, JQUERY, SPRING BOOT, EHCACHE, MYSQL
  - Constructed a scalable and reliable URL shortening service. Ensured high availability and efficient URL management with Ehcache caching mechanisms.
- **VINTAGE KNOWLEDGE** | HTML, CSS, JAVASCRIPT, JQUERY
  - Designed an educational website for learning 'C' programming. Offered a structured, user-friendly interface for comprehensive coding tutorials.
- **TEXT SUMMARISATION** | HTML, CSS, JAVASCRIPT, JQUERY, PYTHON, FLASK, NLP
  - Created a Flask-based application for text summarisation. Applied Natural Language Processing (NLP) techniques to produce concise and accurate text summaries.

## Personal Information

**Hobbies:** Technophile, Photophile, Melophile, Engaging in Carrom, Cricket, Chess, BasketBall, Badminton

**Languages:** Proficient in English, Kannada, Hindi, Telugu, Tamil