

Sri Harsha Patallapalli

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Education

Khoury College of Computer Sciences

Graduate

Master's in Artificial Intelligence (intake Fall 2023)

Boston, MA
2023-present

Amrita School of Engineering

Undergraduate

Computer Science Engineering, CGPA - 8.24/10, Graduated with First class and Distinction

Coimbatore, India
2015 - 2019

Experience

Lowe's

Data Engineer

Bangalore, India
June 2021 - June 2023

- Collaborating on building data pipelines for financial data of products in Lowe's inventory(Retail, data driven).
- Pipelines include assembling large complex multi-time dimensional(daily, weekly, quarterly etc) data sets to be consumed by business.

Tech Stack - Pyspark, Java, Python, SQL, Airflow, Shell Script

GE Healthcare

Data Engineering Specialist

Bangalore, India
Aug 2019 – June 2021

- Collaborated on building a petabyte scale data warehouse solution and data pipeline on AWS with data and analytics team for Healthcare assets and its metadata, reducing the overall cost of operation by 80%(compared to the old on-prem solution).
- Automated the compaction process development, using glue ETL jobs creation, data profiling, DDL creation and copying data to Redshift; effectively reducing the development cycle time from days to few hours.
- Collaborated on building near real time system to provide order details to customers regarding equipment and spare parts purchased; reduced the data lag from several hours to few seconds(comparison between old and new solution).

Tech stack - Pyspark, SQL, Python, AWS, Kafka, Java, Spring boot

GE Power

Digital Technology Intern

Bangalore, India
Jan 2019 – June 2019

- Collaborated on building micro services and automation of the design process of a Heat Recovery Steam Generator.
- The solution efficiently replaced excel workloads, reduced manual errors.
- Design delivery speed improved multi-fold.

Tech stack : Spring Boot

GE Digital

Digital Technology Intern

Bangalore, India
May 2018 – Jul 2018

- Collaborated on building micro services and automation of the design process of a Thermal power plant boiler.
- Design delivery speed improved multi-fold.

Tech stack : Spring Boot

Certification

AWS Certified Data Analytics Specialty

Credential ID : YS3PQSDJEQ11D3S

Confluent Certified Developer for Apache Kafka

Credential ID : 27941198

Publications

- Vasudevan, S. K., Shah, I., **Patallapalli, S.**, Karthikeyan, S., Chandran, S. S., & Bharadwaj, U. A. (2019). An innovative technical solution to avoid insomnia and noise-induced hearing loss. *International Journal of Medical Engineering and Informatics*, 11(3), 252-264.

Vasudevan, S. K., **Patallapalli, S.**, K., Shah, I. (in press). Smart and Efficient IoT Based Quality Tracking System for Perishables – Pertaining to Indian Conditions. *International Journal of Advanced Intelligence Paradigms*. (Accepted)

Recent projects

Anakin breaking bad

Dec 2023

- Implemented reinforcement learning using MDP and Value Iteration using numpy for optimal decision-making in grid-based gaming
- Integrated VADER sentiment analysis(NLP) for dynamic user-driven moral alignment, enhancing gameplay with strategic and diverse interactions.
- Designed nuanced reward systems, including exponential rewards for specific actions to manipulate AI with incentives in complex gaming scenarios.

https://github.com/Mani676901/ANAKIN_BREAKING_BAD

Fashion wardrobe

Dec 2023

- Implemented a pipeline of AI models to perform Image segmentation, Image classification and Image annotation on normal images to extract metadata of the individuals wardrobe.
- The metadata is further used to recommend the appropriate combination of clothes to wear for a given event.
- Served the pipeline through a web server using Fast API.

<https://github.com/panic-ai/sbuhack/tree/main>

Achievements

2nd Runners, Bengaluru Tech Summit-Global Hack

Nov 2018

- Designed a solution to provide dynamic traffic management using deep learning and computer vision(Tensorflow, open CV).
- Vehicle density at each signal calculated using object detection model (YOLO architecture).
- Density passed to a reinforcement Q-Learning algorithm to compute the optimal traffic light configuration.
- Reward system for reinforcement Deep Q-Learning was based on vehicle density. <https://github.com/muffyharsha/Team-Anonymous-BTS>

Winner, GE Industrial IOT Hackathon

Nov 2017

- Competed with 180+ teams across India on a theme of Smart City.
- Devised an end-to-end solution to monitor the quality of perishable goods using Internet of Things (IoT) and cloud.
- Implemented an Android application that analyzes data from google sheets and displays the quality of goods in transport.
- Automated allocation of destinations for goods delivery within the Android application with google maps navigation integrated.

Technical Skills

Languages: Python, Java, JavaScript

Databases, Cloud, and Version Control: SQL, AWS, EC2, Redshift, Teradata

AI/ML and Frameworks: Tensorflow, PyTorch, Deep Learning, scikit-learn, pandas, NumPy, Django, Fast API, Angular JS, Spring Boot