

# SONI ARYA

+91 9998308768 | aryarsoni2020@gmail.com | linkedin.com/in/arya-soni-8728252b7/  
https://github.com/aryasoni28 | https://leetcode.com/u/Arya\_2810/ |  
https://aryaportfolio-mu.vercel.app/ | https://www.geeksforgeeks.org/user/aryarsoz37p/



## EDUCATION

### PES University

Bachelor of Technology in Computer Science and Engineering

GPA: 8.38/10.00.

Relevant Coursework: Data Structures and Algorithms, Web Development, Operating System, Computer Networks, Big Data, Machine Learning, Data Analytics, Cloud Computing, Generative AI, Database Management System, Compiler Design

Awards: CNR Rao Scholarship , MRD Scholarship (awarded to top 20% students in university), 2 Distinction awards

Bangalore, India  
2022-2026

## SKILLS

Languages: C, C++, Python, HTML5, CSS3, Javascript, SQL

Tools and technologies: MySQL, MongoDB, Apache Hadoop, Apache Spark, Apache Kafka, NumPy, SciPy, SpaCy, OpenCV, React.js, Node.js, Git, Github, Pandas, Sklearn

## EXPERIENCE

### Micro Orbit Consulting Services

Software Development Intern

Gujarat, India

May 2024-August 2024

- Engineered a user-friendly web application that streamlined design project submissions for a Belgium interior design firm, reducing submission errors by 35% and enhancing client satisfaction ratings by 15%.
- Implemented features like interactive project tours, advanced search functionality and interactive 360-degree project views.

## RESEARCH PAPERS & PUBLICATIONS

### A Practical Evaluation of Vector, Graph, and Hybrid RAG Systems

- Developed and benchmarked three RAG architectures (vector/ChromaDB, graph/Neo4j, hybrid) with quantifiable metrics (BLEU, F1, precision@k), demonstrating hybrid systems achieve 15-20% higher accuracy while analyzing latency-memory tradeoffs in real-world QA applications.

## PROJECTS

### 1. Developing Adaptive Self-Driving Cars Using Liquid Neural Networks and Reinforcement Learning

Ongoing

CARLA, Liquid Neural Networks, DDPG, CNN

- Developed an adaptive self-driving system using Liquid Neural Networks and Reinforcement Learning for dynamic decision making.
- Designed a hybrid framework integrating CNN-based semantic segmentation, uncertainty analysis, and DDPG-based RL for efficient navigation.

### 2. Yet Another Distributed Task Queue (YADTQ)

November 2024

[Link](#)

Apache kafka, Redis, Python, Tkinter

- Developed YADTQ, a scalable task queue system enabling concurrent execution with prioritization, retries, and failure handling.
- Optimized load balancing and dynamic worker assignment, reducing task delays by 30% while ensuring seamless integration.

### 3. IoT-Based Safe Lock System with OTP Verification and CCTV Surveillance

April 2024

[Link](#)

Raspberry Pi OS, Flask, HTML, RPi.GPIO, SSH, Socket Programming, OpenCV

- Developed an IoT-based safe lock system using Raspberry Pi with IR sensor-triggered object detection and OTP verification.
- Integrated IP-validated OTP access, dual-function keypad, and CCTV footage capture, reducing unlock time by 40%.

### 4. Real-time fraud detection in digital transactions

January 2024

[Link](#)

React Native, Node.js, MongoDB, NLP using SpaCy and PyMongo module

- Developed an NLP-based real-time fraud detection system, reducing false positives by 35% and preventing 65% of fraud cases.
- Designed an algorithmic framework analyzing user data across five key metrics to enhance security and trust.

## CERTIFICATIONS

- Arithmenia 3.0 runner up certificate (Conducted at PESU RR campus)
- Healthack participation certificate (Conducted at PESU RR campus)
- Hack4Soc participation certificate (Conducted at RVCE)
- Override'22 participation certificate (Conducted at PESU EC campus)
- Runner up in intra-college Badminton tournament
- Badminton state level tournament participation certificate

## LEADERSHIP AND VOLUNTEERING EXPERIENCE

### SAHAI INDIA

Design Team

Remote

March 2024-November 2024

- Designed visual content for campaigns, social media, and promotional materials
- Collaborated with the team to maintain a consistent and engaging brand identity

### Codechef PESUECC

Technical Core Team

Pesu EC Campus

August 2024-May 2024

- Assisted in developing and maintaining technical projects for the club
- Collaborated with the team to troubleshoot issues and improve digital solutions