# Hariesh Ramesh

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# CAREER OBJECTIVE

Motivated computer science professional seeking a challenging role in a dynamic organization. Looking to leverage my software development and data analysis skills to drive innovative solutions. Committed to continuous learning and applying technical knowledge to solve complex problems.

# **EXPERIENCE**

# UNIVERSITI TEKNOLOGI PETRONAS | RESEARCH INTERN Jan 2024 – June 2024 | Perak, Malaysia (Remote)

- Collaborated with UTP researchers for detailed analysis of Deep Learning and Deep Reinforcement Learning models on Sentimental Analysis.
- Acquired expertise in applying Reinforcement Learning and Deep Reinforcement Learning for Sentimental Analysis Dataset.
- Designed and evaluated Q-Learning, Deep Q-Learning, and CNN-LSTM models.

# **FABROMEN** | WEB DEVELOPER INTERN March 2023 - April 2023 | Erode, TN (Remote)

- Launched the first-ever company website, focusing on front-end development and UX/UI design.
- Partnered with a fellow intern to draft UI using Figma, creating user-friendly layouts and prototypes.
- Rendered UI design into functional front-end elements using HTML and CSS, ensuring responsiveness and visual appeal, and hosted the final website.

# **PROJECTS**

# FORECASTING THE RISK OF CHRONIC KIDNEY DISEASE Jan 2024 – June 2024

- Developed a GNN model to predict CKD progression, demonstrating superior performance in forecasting GFR values.
- Enhanced model accuracy by implementing advanced feature engineering, such as date conversion and feature scaling.
- Applied CNNs, LSTMs, and VAEs, with GNNs proving most effective in capturing intricate data relationships for accurate predictions.

#### YOGA POSE RECOGNITION AND CORRECTION Aug 2023 - Nov 2023

- Developed an AI system for Real-time yoga pose recognition and correction system.
- Achieved 98.89% training accuracy with CNN and 84.79% validation accuracy with CNN-LSTM.
- Leveraged MediaPipe for precise pose estimation, implemented hybrid CNN-LSTM models and processed a diverse dataset of 5,134 images with rigorous filtering and hyperparameter tuning.

# GPS TOLL AUTOMATION DISTANCE MEASUREMENT Jan 2023 - April 2023

- Designed a model using Arduino Nano to track GPS signals and Arduino Uno to process readings from an RFID scanner.
- Developed a system to detect vehicle entry onto highways and calculate distance using a transmitter and receiver.
- Created the project prototype for real-time tracking and distance measurement, though it remains incomplete and not intended for further development.

# **SKILLS**

#### PROGRAMMING LANGUAGES

Intermediate Proficiency:

Java • Python Basic Proficiency: C++

### **WEB DEVELOPMENT**

Intermediate Proficiency: HTML • CSS • JavaScript

#### **TOOLS & TECHNOLOGIES**

GIT • React • Flask • Node.js • Power BI

# **EDUCATION**

### **KONGU ENGG. COLLEGE**

B.Tech in AI and ML with Honors in IoT Expected March, 2025 | Erode, TN Cum. GPA (till 6th Sem): 7.58 / 10.0

### CEOA MATRIC. HSC SCHOOL

May 2021 | Madurai, TN Percentage: 84.064

### **GEMS OOB SCHOOL**

March 2019 | Sharjah, U.A.E Percentage: 73.33

# AREA OF INTEREST

Machine Learning • Deep Learning • Ethical AI • Web Developer

# **PUBLISHED**

#### **IEEE PAPER**

ALZHEIMER'S PREDICTION USING DEEP LEARNING August 2023 | Sasthamkotta, Kerala Best Paper Award, ICCPCT (IEEE), Deep Learning for Alzheimer. Publish link: **IEEE** 

#### **NEWSLETTER**

COMPARATIVE ANALYSIS OF LLM MODELS

Published newsletter in Centillions Lab, highlighting key insights and findings.

Publish link: Centillion Case Studies

## **ACHIEVEMENTS**

### **SIGNIN 2K22**

Runner-up in Paper Presentation

#### **ELITE WORLD RECORD**

Participated in a world record event held by CEOA Schools

### KFAS SCIENCE ACADEMY

Completed a scientific training session