

HEMANT RAKESH

B.E in Computer Science and Engineering

ABOUT ME

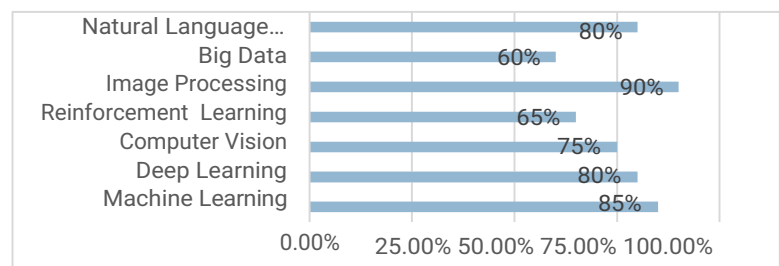
- Seeking a competitive and challenging environment where I can serve my skills to the best of my abilities.
- Worked on Artificial Intelligence and computer vision -based application like 3D reconstruction, Autonomous driving vehicles, Language translation, image generation.
- **ML, DL, CV, and NLP Frameworks:**
scikit-learn, pytorch, nltk, numpy, plotly, openai, opencv.
- **Cloud platforms:**
Google Cloud Platform (GCP),
- **Hardware implementation:**
Nvidia Jetson series (Nano, Tx2 and Xavier) – for deep learning and robotics.
- **Big data frameworks:** Hadoop, Apache Spark

CONTACT

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SKILLS



PROJECTS

3D Reconstruction.

Developing a computer vision model to reconstruct multiple images to produce a 3D model of the same.

Interactive graph-based visualization of Keywords

- Extracting keywords from audio based on context using natural language processing and speech recognition techniques.
- Tap on the keyword, would retrieve historic data (phrases and audios) of the same.

Multi-agent search for navigation

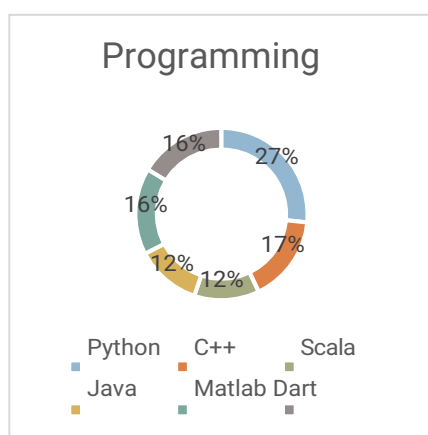
An approach to find the best optimal path for robot navigation using MARL (Multi Agent Reinforcement Learning) and optimization techniques.

MicroMouse

An autonomous robot which can zoom through a maze using Simultaneous Localization and Mapping; and Q-Learning.

LINKS:

- **GitHub:**
Github.com/Hemantr05
- **Twitter:**
Twitter.com/@HemantNishant
- **LinkedIn:**
<https://www.linkedin.com/in/hemant-rakesh-983b59129/>
- **Medium:**
medium.com/@Hemantrakesh



ACHIEVEMENTS

Grade I, II and III in Plectrum guitar
Top 5 in Rajasthan Hackathon 5.0

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INTERSHIP/RESEARCH EXPERIENCE

Silversparro Technology Pvt. Ltd. – Deep learning Intern

Jan'20-Jun'20

- Read and implemented self supervised approaches to improve object detection.
- Built custom data loaders and cost function

Physics Lab, IISER Kolkata – Research Intern

Aug'19-Dec'19

- Developed artificial intelligence models and applications involving natural language processing, machine learning, deep learning with quantum computers.
- Co-authored a review paper, A Review: Quantum Machine Learning (accepted)

Bees Lab, DESE, Indian Institute of Science - Research Intern

Aug'18–Aug'19

- Developed application for 3D reconstruction application.
- Implemented deep learning models (U-Net) from scratch to detection and classification.
- Developed flutter mobile application to retrieve data from embedded system.

Laser Spectroscopy Group, Indian Institute of Science - Summer Intern

Jun'18–Aug'18

Software using python to interact with the Wasatch photonics hardware to retrieve data from lasers, preprocess it with signal processing techniques, and display a finger print in real-time.

PUBLICATION

Drawing inferences about the condition of stray dogs using the concepts of AI and computer vision, International Journal of Electrical, Electronics and Data Communication, ISSN(p): 2320-2084, ISSN(e): 2321-2950, Volume-6, Issue-5.

EDUCATION

Nitte Meenakshi Institute of Technology (NMIT), Bengaluru

Aug'16 – May'20

- Class representative in 1st year.
- Guitarist at the Nmit music club.
- Initiated and head of the Nmit Machine Learning Club.
- Member of the Branch technical club (Cryptec).

COURSES

CS231n: Convolutional Neural Networks for Visual Recognition, Stanford

- CS22n: Natural Language Processing with Deep Learning, Stanford
- CS234n: Reinforcement Learning, Stanford
- CS229: Machine Learning, Stanford (Andrew Ng)
- MIT 18.06: Linear Algebra, Spring 2005 (Gilbert Strang)
- Google Cloud Platform, Coursera.org
- Introduction to Computer Vision, Udacity.
- Self-Driving Car Fundamentals: Featuring Apollo, Udacity.
- SLAM Course by Cyrill Stachniss
- Game Theory part - 1 and 2, Coursera.org