

Hemant Rakesh

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| [LinkedIn](#) | [Github](#) | [StackOverflow](#) | [Pytorch forum](#) | [Medium](#) |

Education

B.E Computer Science and Engineering
Nitte Meenakshi Institute of Technology, Bangalore, IN.

2016 – 2020

Experience

Machine Learning Engineer Jan'21 – Present
Glib.ai

- Custom model development for NLU based semantic understanding of document(s)
 - Development of scalable APIs (sync/async) for real-time document parsing and understanding
 - Client interactions for better understanding of the problem statement, bug fixes/inaccuracies.
- Internship Experience

Deep Learning Intern Jan'20 – Jun'20
silversparro technology pvt. ltd. (acquired by Dataweave)

- Improved existing object detection pipeline with semi-supervised learning
- Developed custom loss functions and data loaders based on client data

Research Intern Aug'18 – Dec'19
BEES lab, DESE, IISC

- Worked on real-time classification and analysis pipeline for clinically provided oral cancer cells
- Reconstruction of 2D scans (clinically provided) to 3D-printable models using various computer vision and deep learning-based computer vision models

Summer Intern Apr'18 – Aug'18
LSG, IPC, IISC

- Python based GUI for real-time retrieval and visualisation of data to analyse laser spectroscopy
- Explored various signal smoothing and de-noising techniques to improved clarity in visualisation

Project

April Nov'21 – Present

- April is a desktop based virtual assistant similar to Cortana and Siri but for linux machines
- It is driven by speech and NLU models with a simple yet elegant system architecture to help with continual learning

TAG Jul'20 – Present

- The API Garage (TAG) is a collection of machine learning (both vision and language) APIs developed with Flask as well as FastAPI
- Can be deployed with Docker, and web server unicorn (for web 3.0 compatibility) and tested on postman as well as swagger (for fastapi)

Skills

Languages: Python, C, C++, SQL
Web Frameworks: Flask, Fastapi
CI/CD Tools: Git, Docker, Github Actions
Cloud platforms: AWS, GCP
Databases: Postgresql, MongoDB
Other tools and technologies: RabbitMQ, Redis, Celery, Postman, Jupyter Lab

Courses

Deep learning specialisation, cs229, cs231n, cs224n, digital image processing, advanced algorithms, self-driving car fundamentals: featuring apollo, principles of parallel computing

Achievements

- Head of Machine Learning Club
- Member of Music Club
- Top 5 out of 200 teams in Rajasthan Hackathon'19

Publications

- **A semi-supervised approach to semantic segmentation of chest x-ray images using deeplabv3 for covid-19 detection**, Shipa Ankalaki, Dr. Jharna Majumdar, **Hemant Rakesh**, JCR. Year: 2020, Volume: 7, Issue: 15: 3205-3212. DOI: 10.31838/jcr.07.15.438
- Vijaya Shetty S., Akshay S., Shritej Reddy B.S., **Rakesh H.**, Mihir M., Shetty J. (2022) **Graph-Based Keyword Extraction for Twitter Data**. In: Shetty N.R., Patnaik L.M., Nagaraj H.C., Hamsavath P.N., Nalini N. (eds) Emerging Research in Computing, Information, Communication and Applications. Lecture Notes in Electrical Engineering, vol 790. Springer, Singapore. https://doi.org/10.1007/978-981-16-1342-5_68
- Mishra N. et al. (2021) **Quantum Machine Learning: A Review and Current Status**. In: Sharma N., Chakrabarti A., Balas V.E., Martinovic J. (eds) Data Management, Analytics and Innovation. Advances in Intelligent Systems and Computing, vol 1175. Springer, Singapore https://doi.org/10.1007/978-981-15-5619-7_8
- **Hemant Rakesh**, Nalini N, "**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.