



# GAUTHAM MANURU PRABHU

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GitHub

LinkedIn, Google Scholar

## EDUCATION

**Manipal Institute of Technology**

B.Tech Computer Science *CGPA (till 6th sem): 8.73*

Manipal, Karnataka

2020 - 2024

**Little Rock Indian School**

High School *Percentage: 95.60%*

Brahmavar, Karnataka

2008 - 2020

## EXPERIENCE

**Indian Institute of Technology, Kharagpur**

June 2023 -August 2023

Worked as a **Deep Learning Intern**, on an interdisciplinary project to detect retinal abnormalities in Optical Coherence Tomography(OCT) scans. Engineered an ensemble-based feature fusion methodology integrating various optimization strategies

## SKILLS

Machine Learning, Deep Learning, NLP,CV,Keras, Tensorflow, Pytorch, Qiskit, OpenCV, Python, C++, C, Java, SQL, Bootstrap, MongoDB, Django, Hadoop, Flask, HTML, CSS, Javascript, Git, Linux

## PROJECTS

**VIKAS** *Python, NLP, CV*

Proposed a solution VIKAS, which is a real-time, multimodal solution that links **disaster victims** and first responders from NDRF thus **streamlining support** to the most vulnerable when a disaster takes place. The solution employs NLP to classify **tweet relevancy**, and CV to quantify the severity and nature of the damage.

**Quantum Ecosystem for Efficient Medical Imaging** *Qiskit, Pytorch, Computer Vision, Streamlit*

Developed a quantum machine learning framework tailored for the analysis of ECG data, leveraging **quantum architectures** to facilitate rapid data processing and feature extraction. The project was funded by the **Ministry of Electronics and Information Technology** and **AWS**

**Efficient Banking System** *Python, Socket Programming*

Designed a **scalable** client-server banking application that offers a suite of financial services, including **concurrent deposit and withdrawal functionalities**. The server architecture is built on a multi-threaded model, ensuring the simultaneous processing of client requests without bottlenecks. The software features real-time updates, secure client-service communication and and guarantees transactional integrity.

## PUBLICATIONS

1. **Prabhu, G.M.**, Gupta, T., Srujan, M.V., Soumya, A.R., Palorkar, A., Chowdhury, A. (2022). **VIKAS: A Multimodal Framework to Aid in Effective Disaster Management**. Applications and Techniques in Information Security (ATIS 2022). [Link to publication](#).
2. Hegde, G., Gupta, S., **Prabhu, G.M.**, Bhandary, S.V. (2023). **EyeEncrypt: A Cyber-Secured Framework for Retinal Image Segmentation**. Applications and Techniques in Information Security (ATIS 2022). [Link to publication](#).
3. Hegde, G., **Prabhu, G.M.**, Gupta, S., Prabhu, G.M., Palorkar, A., Srujan, M.V., Bhandary, S.V. (2023). **A Systematic Review of Deep Learning Approaches for Vessel Segmentation in Retinal Fundus Images**. Second International Conference on Artificial Intelligence, Computational Electronics and Communication System (AICECS 23). [Link to publication](#).
4. Rao, C., Gupta, S., **Prabhu, G.M.**, Kumar, A.R, Shetty, N.P, (2023). **Addressing Vaccine Misinformation on Social Media by leveraging Transformers and User Association Dynamics**. Accepted at International Conference on Machine Learning and Data Engineering (ICMLDE 2023).
5. Iyer, A.A., **Prabhu, G.M.**, Gupta, T., Deshmukh, S., Rivankar, R. (2023). **Exploring Design Optimisation Techniques of a Radio Telescope Using Fixed Costing Constraints**. Second International Conference on Artificial Intelligence, Computational Electronics and Communication System (AICECS 23). [Link to publication](#).

## POSITIONS OF RESPONSIBILITY

**Co-founder and Technical Head, Project Kalpana**

**General Secretary and Treasurer, Association for Computing Machinery, Manipal**

**Technical Head, The Astronomy Club of Manipal**

AWARDS

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- 1. **Smart India Hackathon Finalist** - Qualified for the grand finale of the Smart India Hackathon under the category hosted by the National Disaster Response Force (NDRF). Event endorsed by the Ministry of Education, Government of India.
- 2. **Quantum Science and Technology Hackathon Competitor** - Participated in the grand finale of the Quantum Science and Technology Hackathon, among the Top 16 teams worldwide, from 25 participating countries. The event is organized by the Quantum Ecosystems Technology Council of India.
- 3. **Kharagpur Digital Health Symposium** - Presented a poster titled "Enhanced Analytics And Procedural Decision-Making For Ocular Diagnostics Using Multi-Modal Data" at the Kharagpur Digital Health Symposium and Round table, IIT Kharagpur.
- 4. **National Talent Search Exam (NTSE) State Scholar** - Recognized as a scholar in the National Talent Search Exam (NTSE).

CERTIFICATION

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Optimization for Machine Learning and Operations Research	Indian Institute of Technology, Goa
Dynamic Resource Allocation Problem	Indian Institute of Science, Bengaluru
Deeplearning Specialization	DeepLearning.AI