G VENKATA RAVI RAM

7696884562 ◇ Mangalore

Gmail ◇ LinkedIn ◇ GitHub ◇ Scholar

EDUCATION

B.Tech in Artificial Intelligence   **2021 - 2025**
National Institute of Technology, Karnataka, IT Dept. **Current GPA: 8.95**
Minor in Management   **2022 - 2025**
National Institute of Technology, Karnataka, School of Management

EXPERIENCE

Dept. of Optometry, University of Waterloo   May 2024 - Present
Role: MITACS Globalink Research Intern   Waterloo, Canada (On-Site)

- Working on Tumor Segmentation under guidance of Dr.Vasudevan Lakshminarayan.
- Utilizing CNN and researching on Computer Vision techniques for the same.
- **Skills Used:** Deep Learning, Machine Learning, Computer Vision, Math, Parallel Computing

SCaLAR Lab : Website   Sep 2023 - Apr 2024
Role: Member, Web-Admin   Surathkal, India (On-Site)

- Submitted a Proposal to ISRO in RESPOND 2023 for collaboration of an LLM based project along with proof of concept.
- Working on Capstone Project towards automation of Heath-Care under guidance of Dr. Anand Kumar M.
- **Skills Used:** HTML, CSS, Javascript, ML, Software Engg., Github-Pages, LLM

HALE Lab, NITK : Website   Jun 2023 - Aug 2023
Role: Research Intern   Surathkal, India (Remote)

- Worked on Table extraction from scanned documents and identified potential challenges in due course.
- Devised an object-detection and contour-detection based algo for table detection and segmentation from scanned documents.
- **Skills Used:** Data Visualizations, Image preprocessing, OpenCV, YOLOv5, OCR, Computer Vision, NLP

PROJECTS

Item Difficulty & Response time prediction ‖ LLM, Regression   (Paper Link) **Presented at NAACL '24**
- Achieved Global Ranks 19 and 12 in Shared Task of predicting Question difficulty and response time respectively.
- Performed data augmentation to balance data, used Bio-BERT embeddings and extracted numerical features for regression.

Automation in Space Mission Analysis using LLM ‖ LLM, BERT, Data-Preperation   **Presented at ICITIIT '24**
- Inspired by ISRO problem statement RES-URSC-2022-003 stated in RESPOND Basket 2022.
- Developed end-to-end system for understanding natural language query and presenting results using LLM. (71% accuracy)

Heart Disease Predictor ‖ Bio-inspired algorithms, Flask, Streamlit   (Paper Link) **Presented at FRUCT '24**
- Achieved 91% test-accuracy using Ant-colony optimization for hyperparameter tuning of custom ANN.
- Compared genetic algo and swarm bee optimization for hyperparameter tuning. Deployed web-app and mobile-app.

ACHIEVEMENTS

- Secured Global Rank 12 and 19 in two subtasks of **ACL-BEA SIGEDU Shared Task** based on NLP.
- Selected for and Attended **Amazon ML Summer School** 2023 and also Selected for **Amazon CodeElevate** 2023.
- Qualified **Flipkart GRID 5.0** Level 1 in SDE and Robotics tracks. Global Rank 5544 in **Google Codejam-2023**.
- Global rank 27 in **Codechef** monthly contest (Apr 2022). AIR 3 in **Penumbra** (2021-22 edition), conducted by IIITV.
- **Rank Opener (99.91 percentile)** of B.Tech in AI 2021-25 batch, recieved Merit-Only scholarship for 3 consecutive years.
- AIR 1125 in **JEE-MAIN** , AIR 4658 in **JEE-ADV**, AIR 70 in **ISI Entrance Test**, 330 in **AP-EAPCET** in 2021.
- Qualified **KVPY** round 1 in 2020, secured Rank 7 in **NTSE** Stage 1 2020.

SKILLS

Languages	**Adept:** Python, C. **Familiar:** Java, Javascript, C++, SQL
Coursework	DSA, Data Science, ML, NLP, AI, Optimization Techniques, Deep Learning, Parallel Computing
Developer Tools	VS Code, Pycharm, Jupyter Notebook, Google Colab, IBM Quiskit, Git
Technologies/Frameworks	OpenCV, MediaPipe, Tensorflow, Keras, Streamlit, Linux, SciPy

POSITION OF RESPONSIBILITY

- Placement Coordinator, CDC-NITK.   **May 2024 - Present**
- Internship Coordinator, CDC-NITK.   **Jul 2023 - Mar 2024**
- Academic Secretary, NITK Students' Council.   **Apr 2023 - Apr 2024**
- Secretary, ACM-NITK Student Chapter.   **Apr 2023 - Mar 2024**
- ML Track sub-incharge in Tri-NIT Hackathon, ACM-NITK Student Chapter.   **Dec 2022 - Feb 2023**

EXTRA-CURRICULAR ACTIVITIES

- Section Editor of Annual Magazine of **ACM-NITK** for year 2022-23. Authored a BLOG on Singuarity for ACM-NITK.
- Worked as **Teaching Assistant at NITK** for Professional Communication under School of Management for 4 months.
- NSS Volunteer and Core member in web-team of **NSS-NITK** unit.