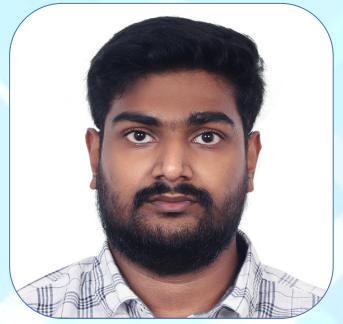# Rohan Goli

Graduate Research Assistant, Clemson University

📞 +1 (669) 258-6784

✉️ rohanr27@gmail.com
rgoli@clemson.edu

🔗 linkedin.com/in/rohangoli/

📍 220 Elm St. Apt 103,
Clemson, SC, USA – 29631

SUMMARY

I bring a firm grasp of fundamentals in Electronics & Computers, an aptitude for teamwork, a zest for challenges, and an enthusiastic desire to learn all I can. I look forward to a research position that allows me to develop problem-solving skills and advance my abilities in the computer science field.

AREAS OF INTEREST

Natural Language Processing | Data Science | High-Performance Computing | Unmanned Vehicles | Cloud Computing

EXPERIENCE

Research Assistant at Health Informatics – Decisions & Evidence Lab, Clemson University

Oct'2021 – Current

NIH funded – R01 Project for Clinical Decision Support Systems (CDSS)

- Design & develop an NLP-driven keyphrase identifier to assist Human Domain Experts in the gold-standard annotation of published Clinical Decision Support Systems (CDSS) research articles to create generic & interoperable CDS rules for healthcare networks.
- Create and experiment with NLP model architecture to find the best subset of textual features, contextual embeddings, and neural attention in recommending the key phrases to match human expertise and improve with continuous feedback.

Cloud Engineer at Teradata

Dec'2020 – Jul'2021

Multi-cloud data platform for Enterprise Analytics

- Designed & Developed the use of Explicit Proxy support on Teradata Vantage for AWS cloud deployment, generating 4M+ USD Cloud Revenue.
- Developed AWS CFTs for Complex, Multi-Tier Public & Private Cloud Offerings.
- We have automated Cloud Integration test suites for Vantage Ecosystem components on AWS & Azure.
- We've maintained a multi-cloud orchestrator for Teradata Vantage.

DevOps Engineer at Teradata

Oct'2018 – Nov'2020

Multi-cloud data platform for Enterprise Analytics

- Filed Invention Disclosure Request (IDR) for Django-Teradata Object-Relational Mapping Layer.
- Full System Implementation for Custom CI workflow management.
- Introduced process change for SQL Engine Developer Community (800+) for Pull Request Validation through Opt-In.
- Developed Power-BI Enterprise Reports for CI over developer code.

Assistant System Engineer at TCS

Jan'2017 – Oct'2018

Worked as Core Release Engineer for Ericsson's Enterprise Cloud Billing (ECB)

- Developed Configuration Management as Code for Nightly CI, Minor and Major Release Upgrade CI.
- We automated virtual-resource deployment on VMWare & Azure platforms.

Entry Level Engineer at NorthAlley

Sep'2016 – Dec'2016

Pari-Mutuel & Fixed Odds Wagering Company

- Developed & Integrated Bill Validators into Linux and Android operated kiosk using C, Python & Android JNI.
- Integrated Thermal Printers in Linux/Android Operated Kiosk & Teller Machines.
- Developed a lightweight Ubuntu OS fork for Kiosk and Teller Machines with an optimum boot time of 9 seconds.
- Designed & developed Punter Display using NodeJS.

Summer Intern at Embedded RF Technologies

May'2015 – Jul'2015

- Developed 3-Axis Accelerometer controlled pointing wearable device using MATLAB - Java Robot, which eases the control over the user interface.

EDUCATION

B.Tech. in Electronics & Communication

Jul'2012 – Apr'2016

Rajiv Gandhi University of Knowledge Technologies at Nuzvid, AP, IND   **8.55/10**

M.S. in Computer Science

Aug'2021 – Dec'2022

Clemson University, SC, USA

Courses:
- Parallel Architecture
- Distributed & Clustered Computing
- Applied Data Science
- Deep Learning
- High-Performance Computing
- Data Mining
- AI Unmanned Vehicles

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PUBLICATIONS

- ### Advanced Raspberry Pi Surveillance (ARS) System
  2015 Global Conference on Communication Technologies (GCCT)

- ### 2D Game Development using RPi3
  IEEE International Conference on Information Communication and Embedded Systems-2016

- **Raspberry Pi Controlled Traffic Density Monitoring System**
  IEEE International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET)-2016

TECH-STACK

Ansible	ASP.NET	AWS	Azure	C/C++
C#	CUDA	Docker	Django	Git
Grafana	Groovy	Jenkins	Keras/TensorFlow	Matlab
MPI	Ngnix	PowerBI	Powershell	Python
Puppet	Rest API	SonarQube	Squid	NLP
Rapids.AI	Dask	Julia	PyTorch	Spacy.IO

PROJECTS

- **Performance comparison of TF-IDF computation on Rapids.AI (via Dask) vs. Julia**

- **Quality evaluation & Reconstruction of Skull-Stripped Brain MRI Images**

- **Next word predictor for programming languages using LSTM/Transformer Neural Networks**
  Create code auto-completion for programming languages that accepts code snippet as input and predicts the following words as suggestions

- **Improve Neural Network Training by distributed synchronous SGD & NV-SHMEM**
  Enabled one-sided communication on a cluster of GPUs in distributed stochastic gradient descent computation to reduce communication overhead on large-scale dataset training

- **Traffic Density Management System and Intelligent Traffic Control Through IoT**
  Dynamically switch the traffic signals based upon the traffic concentration at a crossroad. Interconnected with each other to form an IoT network, switches signal intelligently based upon the upcoming crossroads density data.