

LAKSHMI GAYATHRI RANGARAJU

+1 (864) 776-1501 Clemson, SC

✉ rlgayathri99@gmail.com

🌐 [lakshmi-gayathri-rangaraju-053036184](https://www.linkedin.com/in/lakshmi-gayathri-rangaraju-053036184)

📄 [LakshmiGayathri19](https://github.com/LakshmiGayathri19)

Education

Clemson University

Clemson, SC, USA

Master of Science, Computer Science (3.92/4)

August 2022 - May 2024

- **Coursework:** System Admin and Security, Network Technologies and Security, Foundations of Software Engineering, Machine Learning, Data Mining, Deep Learning in computer vision, Statistical Methods, Applied Data Science, Machine learning - Implementation and Evaluation.

Technical Skills

Languages:	Python, Java, C, C++.
Libraries:	NumPy, Pandas, PyTorch , Sci-kit Learn, Matplotlib, Seaborn.
Backend/Testing Frameworks:	Spring, Dagger, JUnit, Mockito.
Cloud Technologies:	Amazon Web Services - SQS, Lambda, SNS, EC2, CloudFormation.
Web Development:	HTML, CSS, Bootstrap, React, Plotty Dash, SQL .
Tools & Platforms:	Github, Microsoft Powerpoint , Microsoft Excel , Windows, Linux.
Certifications:	Business English (BEC) at vantage level by Cambridge, Google Cloud Computing Foundations , Blockchain Architecture Design & Use Cases, Deep learning specialisation.

Relevant Experiences

Clemson University

Clemson, SC

Graduate Research Assistant

September 2022 - May 2024

- **Optimized** Search Engine with Da Li, Assistant Professor, Civil Engineering Department. Achieved a **remarkable 30%** increase in search process effectiveness by implementing optimisations. Introduced innovative features allowing users to apply filters to their search results, optimising the user experience.
- **End-to-End Development** of Android Applications with Dr. Adam Hoover, Electrical Engineering Department. **Solely responsible** for building the entire code base for mobile and watch Android applications for collecting sensor data.
- **Technologies** - Machine Learning, Plotty - Dash, Python, **Android development**, Java.

Genoparadigm

Hyderabad, India

Research Intern

January 2020 - May 2020

- **Collaborated** with radiologists to optimise breast cancer diagnosis, pioneering the development of a cutting-edge deep learning model. **Publication** - <https://doi.org/10.9734/bpi/idmmr/v6/15428D>
- **Technologies** - **Deep Learning**, Python, Numpy, Pandas.

Projects

Face Mask Detection

Academic Project

January 2020 - July 2020

- **Developed** a state-of-the-art deep learning model based on YOLO architecture using TensorFlow to identify face masks, greatly influencing public safety amid pandemics.

Driver Drowsiness Monitoring System

Academic Project

January 2021 - May 2021

- **Engineered** a cutting-edge CNN + LSTM-based deep learning model dedicated to real-time analysis of driver behaviour in video data.

Quality Evaluation of Skull Stripped Brain MRI Images

Academic Project

January 2023 - May 2023

- **Engineered** a groundbreaking solution utilising deep learning (CNN) technology for the quality assessment of skull-stripped brain MRI images, reducing human intervention leading to a **30%** improvement in efficiency and accuracy during image evaluation.

Determining early readmission of diabetes patients within 30 days of discharge

Academic Project

August 2023 - December 2023

- **Developed** an advanced tool employing deep learning (CNN) to predict readmission within thirty days for diabetic patients post-discharge.

Other Experience

Amazon

Hyderabad, India

Software Development Engineer

August 2021 - July 2022

- **Enhanced** the privacy compliance of service by **10%** through careful development and thorough testing of a strong backend code, in alignment with industry standards.
- **Improved** backward compatibility and API workflow efficiency by an **30%** during an internal service framework migration. Created high-quality test cases to ensure robustness and seamless integration.
- **Elevated** team **operational excellence** by diagnosing root causes for service issues, implementing preventive measures, and conducting thorough code reviews. Actively contributed to creating a resilient and reliable system.
- Led the **design and implementation** of a comprehensive automated notification system from scratch, significantly increasing developer productivity by **20%**. Performed **high-level design** to ensure system scalability and maintainability. Successfully migrated from legacy systems to streamline processes.
- **Automated** the configuration transfer process between service environments, improving development speed by **20%**. Contributed significantly to creating new service environments while adhering to best practices.
- **Technologies** - Java, Spring, Dagger, AWS, JUnit, Mockito, Git.

Amazon

Hyderabad, India

Software Development Engineer - Intern

January 2021 - August 2021

- **Championed** the development of an efficient Model-View-Controller (MVC) application, **leveraging design principles** to achieve a remarkable **40%** reduction in manual effort for gathering essential issue information from clients.
- **Technologies** - **React**, Java, Spring, Git, JUnit, Mockito.