

Laya Rangu

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EDUCATION

University of Massachusetts Lowell

Masters in Computer Science, CGPA : 3.667

Lowell, USA

Sep. 2024 – May 2026 (Expected)

National Institute of Technology Andhra Pradesh

Bachelor of Technology in Computer Science, CGPA : 8.38

Tadepalligudem, India

Nov. 2020 – May 2024

EXPERIENCE

Grader (Data Communications)

University of Massachusetts Lowell

Sep. 2024 – Present

Lowell, MA

- Serve as a Grader under Professor Chen, Ian, providing detailed feedback and comprehensive assignment evaluations for the Data Communications course (COMP.4130).
- Assess students' practical skills and understanding of networking concepts, with a specific focus on grading hands-on **Wireshark** labs.

River Hawk Scholars Academy (RHSA)

Graduate Assistant, University of Massachusetts Lowell

Mar. 2025 – Present

Lowell, MA

- Mentor first-generation college students and coordinate inclusive academic and social engagement events.
- Perform data analysis and visualization to measure student engagement outcomes and support program improvement.

PepsiCo GBS

IT Intern

Jan. 2024 – Jul. 2024

Hyderabad, Telangana

- Automated Azure cloud resource management with PowerShell scripts to identify and remove redundant role assignments, enabling faster user onboarding and reducing access scope conflicts.
- Enhanced Role-Based Access Control (RBAC) by streamlining role assignments, boosting team efficiency in access management by 20%.

National Institute of Technology, Warangal

Research Intern

May 2022 – Jun. 2022

Warangal, Telangana

- Engineered an image colorization pipeline using OpenCV and a pre-trained Caffe model to transform grayscale images into realistic color outputs.
- Utilized LAB color space to separate luminance and chrominance, applying neural network predictions to reintegrate color layers for photorealistic results.

PROJECTS

RSNA Breast Cancer Detection | Python, PyTorch, Timm

Aug. 2023 – May 2024

- Conducted a comparative analysis of 7 deep learning models (CNNs: VGG-19, ResNet-50; Transformers: CAIT, ViT, etc.) for binary classification of mammography images using the RSNA dataset.
- Balanced dataset using SSIM-based reduction, achieving best performance with **CAIT (F1-score: 0.61, Recall: 0.76)** and **VGG-19 (F1-score: 0.57)**.

E-commerce Price Comparison Website | MERN Stack (MongoDB, Express.js, React.js, Node.js)

Aug. 2022 – Sep. 2022

- Built a full-stack price comparison platform with responsive React frontend and optimized MongoDB schema, reducing query time by 30%.
- Implemented Role-Based Access Control (RBAC) and secure RESTful APIs, enabling administrators to perform full CRUD operations for product management.

TECHNICAL SKILLS

Programming: Python, Java, C++, JavaScript, SQL, PowerShell, OOP

Full-Stack: HTML, CSS, JavaScript, React.js, Node.js, Express.js, MongoDB

ML/Data Tools: PyTorch, Scikit-Learn, Pandas, NumPy, Tableau, Jupyter, Selenium

Cloud/DevOps: AWS, Azure, Docker, Kubernetes, Git, Linux

Domains: System Design, Machine Learning, Deep Learning, NLP & LLMs, Computer Vision, Cryptography, Networks, Databases, HCI

LEADERSHIP & ACHIEVEMENTS

- Led technical workshops and mentored peers as Web Developer in Google Developer Students Club (GDSC).
- Served as Class Representative and Event Manager, managing logistics for technical and cultural events.
- Solved 350+ LeetCode problems and scored 97.5 percentile in JEE Mains.