

BADRI NARAYANAN MURALI KRISHNAN

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EDUCATION

University of Wisconsin-Madison

Sep 2023 – Dec 2024 (Expected)

Master of Science - Computer Sciences; CGPA: 3.65 / 4.0

Madison, WI

Relevant Courses: Intro to AI, Advanced NLP, Foundational Models, Big Data, Data Clean & Integration for DS.

SSN College of Engineering (Affiliated to Anna University)

Aug 2018 – May 2022

B.Tech in Information Technology; CGPA: 8.95 / 10.0

Chennai, India

SKILLS

Programming Languages

Python, C, C++

Frameworks and Tools

PyTorch, TensorFlow, Keras, LangChain, Spark, Git, Docker, SQL, AWS

Libraries

NumPy, pandas, matplotlib, scikit-learn, streamlit, NLTK, spaCy, OpenCV

WORK EXPERIENCE

Graduate Research Assistant

Sep 2024 – Present

University of Wisconsin - Madison

Madison, WI

→ Implementing **RAG** and fine-tuning **LLMs** on radiology reports for enhanced diagnostic insight.

→ Working to deploy and host fine-tuned LLMs, improving the accessibility and accuracy of radiological analysis.

Autonomous System Research Intern

Jun 2024 – Aug 2024 (2 Mos)

Nokia Bell Labs

Murray Hill, NJ

→ Leveraged **LangChain** and **Prompt Engineering** techniques to substantiate **LLM** planning & reasoning power.

→ Visualized and deployed the **multi-agent system** using **streamlit** to interact and demonstrate their capabilities.

Associate Engineer - AI/ML

Jul 2022 – Jul 2023 (1 Yr)

Qualcomm

Hyderabad, India

→ Introduced evaluation frameworks and metrics for ML models to enhance efficiency and accuracy by **10.26%**.

→ Ran inference and benchmark tests using SNPE (SnapDragon Neural Processing Engine), based on OEM requests.

Machine Learning Intern

Mar 2021 – Jun 2022 (1 Yr 4 Mos)

Mad Street Den (Vue.ai)

Chennai, India

→ Developed OCR/NLP-based document processing tool to convert unstructured data for workflow automation.

→ Our efforts reduced document processing time by **37%** and achieved an accuracy of **85%**.

Part-Time Undergraduate Research Assistant

Feb 2020 – Jun 2022 (2 Yrs 5 Mos)

Bright Academy (Previously Solarillion Foundation)

Chennai, India

→ Led NLP team translating German sign language weather videos into accurate German sentences.

→ **30.88%** fewer model parameters than the SOTA, **98.19%** and **86.65%** retention for **ROUGE-L** and **BLEU-4**.

SELECTED PROJECTS

Relationship Extraction using Language Models [Github](#)

Feb 2024 - May 2024

→ Extracting complex relationships between entities from unstructured text data, leveraging language models.

Optimizing Natural Language Understanding: Fine-tuning Mistral 7B [Github](#)

Feb 2024

→ Fine-tuning Mistral 7B LLM on the Samantha dataset to conversational and contextual question answering.

Terms of Service Classification [Github](#)

May 2022 - Jun 2022

→ Identify unfair Terms of Service clauses using a two-stage knowledge distillation DL algorithm.

SELECTED PUBLICATIONS

Fake News Detection using a Deep Learning Transformer Based Encoder-Decoder architecture

[Publication](#) [Github](#)

IOS Press - Journal of Intelligent & Fuzzy Systems, 2023 (Science Citation Index Expanded Journal.)

Sign Language Translation using Multi Context Transformer [Publication](#) [Github](#)

20th Mexican International Conference on Artificial Intelligence (MICAI), Mexico City, 2021

Paper published in Springer Lecture Notes in Artificial Intelligence (LNAI) proceedings.