

Murali Gunti

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EDUCATION:

New Jersey Institute of Technology (NJIT) – Newark, NJ

Master of Science in Electrical Engineering — May 2023

- Thesis: *Hashing-Based Distributed Name Server Lookup in Named Data Networking (NDN)*

Rutgers University – New Brunswick, NJ

Bachelor of Science in Computer Engineering — Sept 2019

PUBLICATIONS:

Gunti, M. and Rojas-Cessa, R., 2023, October. **BalanceDN: Load-Balancing Allocation of Interest for Fast Discovery in Content Centric Networks**. In *2023 IEEE 9th World Forum on Internet of Things (WF-IoT)* (pp. 1-6). IEEE.

Komanduri, V., Alessio, S., Estropia, S., Yerdelen, G., Ferreira, T., Gunti, M., Dong, Z. and Rojas-Cessa, R., 2025, May.

Partitioning Prompts for Higher Efficacy in Network Design with Large Language Model. In *2025 IEEE 26th International Conference on High Performance Switching and Routing (HPSR)* (pp. 1-6). IEEE.

RESEARCH EXPERIENCE:

NJIT – Networking Research Laboratory — *Graduate Researcher*

Advisor: Dr. Roberto Rojas-Cessa | Newark, NJ (*Aug 2022 – May 2023*), (*Sept 2024 - Mar 2025*)

- Developed routing protocols for NDN networks to improve efficiency in storing and retrieving information
- Researched scalability and performance limits of NDN applications by performing simulations in NDNsim
- Built LLM transformer and trained it on networking datasets to compare its performance to existing models
- Created a ChatGPT application that trained on networking dataset and generated Cisco router configuration code
- Collected and organized large datasets on the topic of Computer Networking, specifically related to Cisco routers
- Applied LLMs to automatically generate Cisco router configuration code for setting up and configuring routers

NJIT – Electronic Imaging Center — *EM Simulation Researcher*

Advisor: Dr. Haim Grebel | Newark, NJ (*Nov 2022 – May 2023*)

- Researched and simulated nanostructures designed to block electromagnetic radiation
- Used COMSOL Multiphysics to model material structures, define parameters, and run electromagnetic simulations

PROFESSIONAL EXPERIENCE:

Worldpay - *Software Engineer II* - Remote, VA (Oct 2023 - Present)

- Design and develop applications for onboarding merchants for payment processing
- Create documentations on best practices and development workflows for better KT and application reliability

AmFam Insurance - *Software Engineer* - Remote, NJ (Jan 2021 - Aug 2021)

- Developed and maintained customer-facing web application which provided life insurance
- Defined process and protocols for production issue resolution in an efficient and agile manner

Homesite Insurance - *Software Engineer* - Boston, MA (Sept 2019 - Jan 2021)

- Developed and maintained a web application with Java back-end and Backbone JS front-end
- Helped upgrade large scale underwriting, policy administration, agency management, HR and FTP systems

TECHNICAL SKILLS:

- **Languages/Frameworks/Tools:** Java 8+, SQL, MATLAB, Spring Boot, HTML/CSS, DB2, MySQL
- **AI/ML:** ChatGPT, Ollama, Hugging Face, Vibe Coding, Transformers, Prompt Engineering, Agents
- **Other:** Software Engineering, Bash, Testing, Docker, K8s, COMSOL, AWS, DevOps, Linux/Windows/Mac, GitHub

CERTIFICATIONS: CITI Program: Responsible Conduct of Research

INTERESTS: Video Games (LoL, Minecraft), TV, Anime, Cats, Music, Guitar