

Harsha Emani

MLOps Engineer

Fredericton, NB • harsha.emani987@gmail.com • + 1 (506) 440-0282

• [linkedin.com/in/harsha-emani](https://www.linkedin.com/in/harsha-emani) • github.com/HarshaEmani • portfolio.harsha-homelab.me

SUMMARY

Passionate, Goal-Driven Engineer and Researcher with over 5 years of experience in the industry and academia, blended with a versatile set of **technical** and **soft skills**. Demonstrated ability to work in **fast-paced** and **dynamic** environments with mission-critical systems and high reliability software solutions. Seeking for teams to collaborate with, interesting problems to solve and contribute to the collective growth.

SKILLS

Techninal & Energy-Focused: Renewable Energy Load Forecasting, Predictive Modeling, System Health Monitoring, High-Availability System Design, Automation, Proactive Risk Identification and Mitigation

Software & Systems: SDLC, Machine Learning & Deep Learning, DevOps, Software Design, Architecture and Security, Data Analysis and Visualization, SCM, Computer Networking

Programming & Tools: Python, Pandas, scikit-learn, Matplotlib, Seaborn, Keras, TensorFlow, Django, FastAPI, PostgreSQL, MongoDB, Hyperledger Fabric, ReactJS, VueJS, NextJS, NuxtJS, Linux, Docker, Kubernetes, Jenkins, GitLab, IBM Cloud, Figma, Proxmox, Windows

Soft Skills: Excellent language skills, Technical writing, Presentation skills, Motivational speaking, Collaboration, Leadership, Out-of-the-box thinking, Curiosity

WORK EXPERIENCE

Graduate Research Assistant | UNB, Fredericton, NB **May 2024 – Aug 2024 (Full-time)**

- Engineered a **high-performance Deep Learning model** for forecasting the load demand of a Renewable Energy resource and developed a website to assess the performance and analytics for every prediction interval, **improving prediction accuracy** for a **leading energy company**.
- Orchestrated the design and development of a highly reliable and available **microservices architecture** to support similar forecasting tools built by the department.
- Visualized real-time predictions** and analytics through interactive **dashboards** to inform operational decisions.
- Built automated **Python scripts** for data ingestion, transformation, and visualization pipelines.

Member Technical | Broadridge Financial Solutions, India **Jun 2021 – Jan 2023 (Full-time)**

- Handled **End-to-End Fullstack development**, deployed blockchain code, built and managed containers across different environments like Dev, QA, UAT and **Production**.
- Worked as a GitLab maintainer, responsible for version control and **code maintenance**, code reviews, merging changes and maintaining tags for the team.
- Collaborated effectively and **assumed leadership** for a medium-sized team, participated in daily scrum calls, **addressed business needs**, **resolved support tickets** and managed change processes for a Blockchain-based solution.
- Contributed to winning the **NASSCOM 2021 Innovation – Excellence award** for the project.

Backend Support Engineer | Tata Consultancy Services, India **May 2019 – Jun 2021 (Full-time)**

- Debugged backend issues, managed global outages, and resolved stakeholder concerns through clear communication and conflict resolution across high-availability systems in over 100 countries in both cloud and on-premise environments.

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INTERNSHIP

Developer Analyst | Mariner Partners, Fredericton, NB **May 2023 – Dec 2023 (Full-time)**

- Responsible for **end-to-end SDLC** and Fullstack web application including **auth, testing** and **deployment** of an automated survey tool for assessing the industry readiness for companies.
- Developed a secure, cloud-hosted web application for government use, creating APIs for **automated data fetching** and **interactive dashboards** that enabled efficient communication between ports and ships to improve public service accessibility and decision-making.

EDUCATION

Master of Computer Science — Research based **Jan 2023 – Aug 2025**

University of New Brunswick, Fredericton, NB.

- Pursued a research-based masters and successfully defended a thesis on prediction of net load demand forecasting from for renewable energy resources. Conducted thorough **literature review**, data gathering and **ETL**, data analysis, **experimentation** and **implementation** of reliable **AI models**.
- Implemented automated data retrieval and system health monitoring techniques to ensure operational reliability, to align research with real-world energy applications.

Bachelor of Technology — Information Technology

Aug 2015 – May 2019

Vishnu Institute of Technology, Bhimavaram, India.

PROJECTS

Forecaster Tool | Research | [URL](#) **2025**

- Engineered an MLOPs-based forecasting tool for Barbados grid operators with automated data pipelines and containerized microservices with high **reliability, scalability, and maintainability**.
- Developed interactive dashboards and visual outputs to support data-driven decisions, enhanced forecasting accuracy, and translated **AI research** into actionable operational insights.

N8N Prompt Enhancer | AI Automation | [URL](#) **2025**

- Built an n8n **AI Automation** workflow that's automatically triggered by an audio message from Telegram bot, and transcribes voice, and feeds the text to Gemini, which sends back an enhanced text prompt with RICC (Role, Input, Context, Constraints) framework.

CERTIFICATIONS & LICENSING

- Azure AI Fundamentals
- Machine Learning Engineer Nanodegree – Udacity
- Azure Data Scientist Associate – In progress
- P.Eng (with APEGNB) – In Progress

ACHIEVEMENTS, VOLUNTEER WORK & SPECIAL INTERESTS

- Volunteered as a Technical Assistant for the Graduate Student Association of UNB and helped them in building/updating their website with information on new events and important news.
- Built and maintained a **personal homelab** hosting cloud storage, compute resources, and web applications to experiment with IT solutions, explore automation, and identify ways to leverage technology for community benefit.
- Volunteered for Usher/Greeter/Cloak Room Attendant roles at the Fredericton Playhouse.
- Secured an overall score of 10 in the CELPIP Language Requirements Test.
- Interested in travel, learning about new cultures and being a part of the local community.