

Phani Ram Teja Ravipati

414-439-7988 | phaniramr04@gmail.com | github.com/RamRavipati0406 | linkedin.com/in/phani-ram-teja-ravipati

EDUCATION

Master of Science, Industrial and Systems Engineering, Specialization in Applied AI/ML May 2026

University of Wisconsin – Milwaukee, Milwaukee, WI

Courses: Machine Learning, Advanced Mathematical Optimization, NLP, Design of Experiments, Systems Engineering, Probability & Statistics, Operations Research, Project Management

Bachelor of Science, Computer Science; Minor in Business Administration

May 2024

University of Wisconsin – Milwaukee, Milwaukee, WI

TECHNICAL SKILLS

- **Languages:** Java, C/C++, C#, Python, R, HTML, CSS, TypeScript, VBA, Scala, Bash
- **Frameworks/Libraries:** React.js, Django, Flask, FastAPI, LangChain, LangGraph, TensorFlow, PyTorch, NumPy, scikit-learn, Pandas, Pytest, Keras, XGBoost
- **APIs & Cloud:** REST, GraphQL, OpenAI API, AWS (EC2, S3, Lightsail, CloudFront, Lambda), Microsoft Azure
- **Data & Databases:** SQL (PostgreSQL, MySQL), NoSQL (MongoDB), Azure Databases, AWS Lightsail Databases, ChromaDB, Pinecone
- **Data Science & Analytics:** Power BI, Tableau, Matplotlib, Seaborn, Jupyter Notebook, Google Colab
- **Tools & Practices:** Git, GitHub, GitLab, Jira, Trello, Bitwise SSH Client, Nginx, Docker, Linux, Windows, MacOS, MS Office, Selenium, Beautiful Soup, LLMs, IBM CPLEX, Apache Kafka, Agile, CI/CD fundamentals, Eclipse, Visual Studio, VS Code, PyCharm, IntelliJ, RStudio, ns3, Postman, Figma

PROJECT EXPERIENCE

Fitness Progress Tracker, Senior Capstone Project

Jan 2024 – May 2024

- Collaborated in the development of a community-driven fitness app, tracking user progress and engagement through personalized routines. Led design and deployment efforts of a responsive, secure, and scalable system using React, TypeScript, Flask, and MySQL.

BookLake - RAG Document Q&A system

May 2026

- Full-stack RAG app with React/TypeScript, Java, Spring Boot, and AWS (S3, Bedrock, S3 Vectors) featuring multi-modal selection, vector search, and grounded PDF Q&A with session memory and source citations.

WORK EXPERIENCE

Graduate Research Assistant, University of Wisconsin – Milwaukee, Milwaukee, WI

Aug 2024 – May 2026

- Developed domain-adapted Llama model by fine-tuning state-of-the-art architectures on curated, domain-specific corpora.
- Built end-to-end Python pipelines to scrape, clean, and preprocess unstructured text with NLP techniques, producing high-quality training data and applying ML workflows such as cross-validation, hyper-parameter tuning, and model evaluation.

Software Engineering Intern, American Megatrends, Duluth, GA

May 2025 – Aug 2025

- Designed, built, and maintained a multi-agent automation system using AI models for automatic validation and regeneration of Python and Robot Framework scripts; communicated directly with C-suite stakeholders to understand requirements, then analyzed ~400 user queries to build an ROI model quantifying AI-driven savings, finding an average of ~18 minutes saved per engineer session.
- Owned end-to-end development of Grafana dashboards and data pipelines, including migrating to a new data source redesigning legacy dashboards into a more digestible, user-friendly format, and deployed on AWS.

Natural Language Processing Intern, American Megatrends, Duluth, GA

June 2024 – Aug 2024

- Developed and maintained an internal chatbot using Python, Flask, and FastAPI, implementing new features and prompt engineering with OpenAI models; redesigned the multilingual pipeline to use local Chinese-English translation, cutting external API calls per query by ~67%.
- Built a command-line testing and development environment by porting chatbot logic and integrating PostgreSQL, and Pinecone vector database for efficient, and collaborative development.

Teaching and Grading Assistant, University of Wisconsin – Milwaukee, Milwaukee, WI

Jan 2024 – May 2024

- Supported Operating Systems course as a subject matter expert by guiding students on core topics (processes, multithreading, scheduling, concurrency, memory management), updating Canvas materials, holding office hours, and addressing student questions to reinforce understanding.

PUBLICATIONS

- Akundi A, Ravipati PRT, Luna Fong SA, Otieno W. Industry-Driven Model-Based Systems Engineering (MBSE) Workforce Competencies—An AI-Based Competency Extraction Framework. *Systems*. 2025; 13(9):781. <https://doi.org/10.3390/systems13090781>