

# Hemanth Yalamanchili

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## Education

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**Michigan State University** East Lansing, MI  
*Master of Science in Computer Science (GPA: 4.00 / 4.00)* Exp. Grad. May 2025  
*Bachelor of Science in Computer Science* Grad. May 2024  
*Minor in Game Design and Development*  
*Dean's Honors List*

## Experience

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**Machine Learning Engineer – The Anthropocene Institute** Apr. 2024 – Present  
*Machine Learning, Retrieval Augmented Generation, PyTorch, SciKit, Google Cloud Platform* Palo Alto, CA

- Working with the Chief Scientist to create a Monte Carlo simulator to model the viability of various nuclear reactors
- Fine tuning an LLM and implementing Retrieval Augmented Generation (RAG) on public nuclear energy research
- Collaborating with Carl Page, the CEO, in order to accomplish the organization's numeracy literacy objectives

**Teaching Assistant – Michigan State University Computer Science** Aug. 2022 – May 2024  
*Python, C++, OOP, Communication* East Lansing, MI

- Worked alongside peers to advise a class of 300+ students on data structures and algorithms coursework
- Developed and delivered engaging weekly lessons on Object Oriented Programming in C++

**Software Engineer Intern – Athene Holding Ltd.** May 2023 – Aug. 2023  
*REST APIs, Flask, Vue.js, AWS, CI/CD, Agile Dev.* Des Moines, IA

- Designed and deployed a file scheduler on AWS, reducing processing times by 3 weeks per file
- Managed a project from conception to deployment at an organization with \$500+ billion of assets

**Software Engineer Intern – Lear Corporation** May 2022 – Aug. 2022  
*Python, REST APIs, Flutter, Jira, CI/CD* Ann Arbor, MI

- Created an application to automate Jira workflow, saving at least 30 minutes for developers everyday
- Developed a dashboard to display key performance indicators and generate reports for automotive vendors

## Projects

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**Machine Learning Task Manager** | *Swift, TensorFlow, JEPA, Research*

- Created a Swift Command Line Interface (CLI) to process computer usage data in a privacy-focused approach
- Developing a Joint Embedding Predictive Architecture to train and manage tasks based on personal usage
- Plan to present research at the 2024 AI Con Conference in Las Vegas

**Computer Science Capstone** | *Flask, React.js, PyTorch, Kubernetes, PostgreSQL, Google Cloud Platform*

- Developed a machine learning web application to display the viability of carbon dioxide removal methods
- Engineered a Random Forest machine learning model to classify locations' effectiveness in removing CO2
- Winner of the Fall 2023 Exposition Award for best overall project on Design Day

**Hackathons** | *React.js, Flask, Express.js, Chrome Extension, AR, Google Cloud Platform, Machine Learning*

- Developed a Chrome extension to summarize the privacy policy of any website into a fact sheet
- Created a machine learning app that accurately identifies if an item is recyclable in their county from a photo
- Designed and implemented a music social media application by integrating Spotify's API

## Activities/Leaderships

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**Business Professionals of America** | *Chapter President*

- Guided a chapter of 60+ students in competitive events, ranging from financial literacy to programming literacy
- Organized guest speaker events from the business and STEM field

## Technical Skills

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**Languages:** C++, Python, Swift, TypeScript, HTML, C#  
**Technologies:** Figma, React.js, Vue.js, Django, Flask, Flutter, TensorFlow, Google Cloud Platform, AWS, Unity, Docker, Git  
**Concepts:** Full Stack Development, Machine Learning, RESTful APIs, CI/CD, Agile Methodology, Scrum Development