

Hugo Garrido-Lestache

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SUMMARY

- **Senior Computer Science Student** at Milwaukee School of Engineering.
- Dual enrollment in Undergraduate & Masters of Machine Learning.
- Passionate about Researching in AI and Reinforcement Learning, Aspiring Graduate Student and Published Author attending **ICMLA**!
- Support me on YouTube at [@HugoDoesAi](#) and come checkout my [website](#).

EDUCATION

B.S. Computer Science | Milwaukee School of Engineering | GPA: 3.95 | Expected Winter 2025
Game Design & Game Theory Course | University of Lucca | Lucca, Italy | June 2023

RESEACH EXPERIENCE

Research Assistant | Milwaukee School of Engineering | January 2025 – Present

With Jeremy Kedziora, Ph.D.

[Code](#) [Article](#) [Paper](#)

- Developing TAAC a Reinforcement Learning Algorithm to promote Collaboration using Attention in Multi-Agent Environments.
- Got Promising Performance on a soccer environment and tower building environment.
- Presented at a computing symposium and published a paper as first author.
- Came **1st** in the MSOE NVIDIA ROSIE Super-Computer Competition winning over **\$9,000** in prizes.
- Attending **ICMLA** to present Research!

RESEARCH PROJECTS

Research on Developing Education AI Tool

[Paper](#)

With Ethan Jeffers & Ethan Wrasman

- Developed AI tools to enhance learning in early programming Education through LLMs.
- Statistically tested these tools to ensure it effectiveness and prevent negative consequences.

Research on Silent Video Sound Generation

[Paper](#)

With Adam Haile & Helina Mulugeta

- Researched sound synthesis for silent videos using VQ-VAE.
- Attended MICS to present and publish out work.

MENTORING EXPERIENCE

AI Club Mentor | MSOE AI club | Oct 2024 – Present

- Mentoring AI members on AI concepts and algorithms.
- 2025 Member's ended up creating their own CNN on their selected datasets.

Programming Tutor | Milwaukee School of Engineering | September 2023 – December 2023

- Working weekly with around 20 different students to explain topics and concepts in Programming.

WORK EXPERIENCE!

Data Science Intern | Direct Supply | November 2023 – Present

- Ideated and Tested AI tools to solve problems.
- **AI Product Web Scraper:** Created an AI tool to search, parse and combine unstructured data on the internet to augment the company's quality and quantity of data.
- **AI Product Linking:** Improved AI systems to match products together based on semantic similarity.
- **AI Product Tagging:** Created a System to add tags/attributes to products automatically based on product data. This data can be used to group and filter products and feed future AI Models.

MORE PROJECTS!

Wordle Solver AI

[Code](#)

- Created an AI solver using Information Theory which achieves an average of 3.8 guesses per game.
- Made optimizations to allow for faster computer on mobile device.
- Created a test suite to test performance with various changes to allow fast iteration.

Snake Game Reinforcement Learning AI

[Code](#)

- Created a Q-learning AI agent to learn to play the game achieving a high score of 140.
- Tested out ideas to improve results to such as simplifying state + action space and tuning rewards and hyperparameters

Attempt at Large Language Model (LLM)

[Code](#)

- Implemented an LLM from scratch and trained it on a supercomputer.
- Got results which looked like English but failed to have coherent sentences due to lack of data, hardware and time.

Retrieval-Augmented Generation (RAG) Development

[Code](#)

- Developed systems integrating retrieval and generation for AI applications.
- Used HuggingFace to download LLMs and Embedding models when building out RAG.

Software Development Project, Helping Kids LTD

- Developed a program for storing and searching therapist client data
- Implemented login systems with hashing and MySQL Database

CO-CURRICULAR INVOLVEMENT & VOLUNTEERING

Adult Scout Leader | UK Scouts | September 2020 - June 2022

- Organized event planning meeting, activities & games and taught educational skills to 20-25 scouts.

Tau Beta Pi Member | Tau Beta Pi | April 2025 - Present

AI Club Member | AI Club | September 2022 - Present

Scouts | UK Scouts | 2014 - 2021

Climber | Climbing Club | September 2019 - Present

AWARDS & OTHER STUFF

1st in NVIDIA ROSIE Supercomputer Challenge | Milwaukee School of Engineering & NVIDIA

[LINK](#)

Mr. MSOE 2023 | Society of Women Engineers

6x Dean's List with High Honors Award | Milwaukee School of Engineering

[LINK](#)

5th in MICS Programming Competition | Midwest Instruction and Computing Symposium

Gold Scout Award | Scouts

Fundamentals of Deep Learning | NVIDIA

[LINK](#)

Silver Duke of Edinburg Award | Duke of Edinburg

A* - Maths & A* - Computer Science & A – Physics | English A-Levels

TECHNICAL SKILLS

Languages: Python, SQL, Java, C#, C++, C, HTML

Concepts: Reinforcement Learning, AI, Machine Learning Statistics, Exploratory Data Analysis, Agile & Scrum

Algorithms: Transformers, Embedding Models, PPO, Q-Learning, KNN, KMeans, SARIMA, TAAC (my own)

Technologies: Git, Vim, LLM, RAG, AWS, Docker, Databricks, Android SDK, APIs, PyTorch, TensorFlow

Other: Fluent in Spanish, Learning Portuguese, UK & Spanish Citizen.

INTERESTS

Guitar | Climbing | Puzzles | Yo-yo | Origami | Unicycle | Cooking | Gaming | Memes | Youtube