# Thomas C. Parisi

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## College of Engineering • Computer Science BS • AI & Robotics • Cybersecurity

#### Education

University of Delaware

Newark, DE

GPA: 3.63/4.0

2022-Expected May 2026

• University of Delaware Dean's List in Spring 2023, Fall 2023 & Spring 2024

- Relevant Coursework: Machine Learning, Networks, System Hardening & Protection, Algorithms, Artificial Intelligence, Data Mining, Database Systems, Data Mining, Computer Vision
- Robotics Club, Game Development Club Built 2D platformer Swapborn prototype in Godot

# Work Experience

Cybersecurity Research Internship. University of Alabama, Huntsville

Remote

Developer

March- May 2025

- Developed automated CAPTCHA analysis system achieving **87% accuracy** using YOLOv11 object detection and Selenium automation, processing **200+ test cases** to identify security vulnerabilities for academic research
- Led agile development process coordinating 4 researchers through weekly sprints, code reviews, and documentation of ethical security testing methodologies for publication

### **Technical Skills**

Languages: C, C++, Java, Python, JavaScript/TypeScript, HTML/CSS, SQL, GDScript, x64 Assembly

Frameworks & Tools: React, Svelte, Node.js, Git/GitHub, npm, OpenAI API, TensorFlow, OpenCV, NumPy,

Sentence-Transformers, scikit-learn

**Specializations**: Machine Learning (semantic embeddings, clustering, collaborative filtering, computer vision), Systems & Security (SSH, server configuration, Linux administration, key management)

# **Projects**

Semantic File Sorter- AI Powered file organization system

 Designed and implemented a desktop application that semantically clusters and organizes 5,000+ files using sentence-transformer embeddings, HDBSCAN clustering, and LLM-based labeling.

#### Personal Portfolio Website

- Architected and deployed personal portfolio on hardened Ubuntu server with custom DNS configuration and SSL certificates, serving 500+ monthly visitors with 99.9% uptime
- Implemented security hardening including SSH key-only authentication, fail2ban intrusion prevention and UFW firewall rules, achieving A rating on SSL Labs test

#### AI powered Career Quiz

- Developed interactive web application using GPT-4 API that analyzes user responses across 15 dimensions (skills, interests, values, work style) to generate personalized career recommendations with 89% user satisfaction rate from 25+ beta users
- Designed responsive and visually fun space themed UI, enhancing user experience

### Sage Discord Bot

- Developed features for a Discord bot used by 4,000+ members in the UD computer science community
- Collaborated with professors and fellow students to research and develop /calendar command
- Utilized Google Calendar API, Google Authentication