Max Kamachee

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Education

University of Wisconsin-Madison **Madison, WI**
Majors: Computer Science with Honors, Data Science
GPA: 3.7, **Dean's List**
Courses: Algorithms, Probability, Data Structures, Machine Organization, Discrete Mathematics

Professional Experience

Quantum Intelligence Group **Remote**
Software Engineering Intern *February 2025-Present*
- Improved system performance by over 50x by porting solutions into Elixir for concurrency gains and system fault tolerance
- Engineered ETL pipelines and RAG infrastructure with advanced retrieval techniques, enabling domain-specific AI assistants across diverse document sources

Autonomous Resilience & Controls Lab **Madison, WI**
Software Developer *May 2025-Present*
- Implementing LLM-driven navigation to the Jackal UGV Clearpath platform
- Experimenting with safety filters and developing control theory for LLM-driven autonomous systems

UW-Madison Department of Computer Science **Madison, WI**
Undergraduate Researcher - advised by Professor Sharon Li *November 2024-February 2025*
- Advanced LLM hallucination detection research resulting in a published paper in a peer-reviewed journal by conducting an empirical investigation of uncertainty-based methods at the entity level (**See Publications**)

UW-Madison Division of Information Technology (DoIT) **Madison, WI**
Information Technology Help Desk Support *March 2024-January 2025*
- Reduced average technical issue resolution time by approximately 20% through providing comprehensive support and troubleshooting for students, faculty, and staff

UW-Madison School of Materials Science & Engineering **Madison, WI**
Undergraduate Researcher - Benjamin Afflerbach and Dane Morgan *May 2024-November 2024*
- Advanced materials science research by developing and implementing machine learning diffusion models to predict material properties without synthesis

ChangeUp **Los Angeles, CA**
Software Development Intern *May 2022-October 2022*
- Increased donation processing efficiency by 25% through enhancing the Discord donation bot and performing extensive API testing using Postman

Publications

- Min-Hsuan Yeh, **Max Kamachee**, Seongheon Park, and Yixuan Li. "Can Your Uncertainty Scores Detect Hallucinated Entities?", *ICLR 2025 Workshop on Uncertainty and Hallucination of Foundation Models*, https://doi.org/10.48550/arXiv.2502.11948

Projects & Involvement

Wisconsin AI Safety Initiative - Networking Lead, Technical Lead & Safety Scholar **Madison, WI**
Leadership *February 2024-Current*
- Networking with industry and government professionals for various organizational objectives
- Facilitating the 8-Week AI Technical Safety Fundamentals program for new members that covers various AI Safety Topics
- Attending weekly Safety Scholar meetings to read frontier papers, develop technical research abilities, and participate in our research network

Advanced AI Demonstration with the Center for AI Policy **Washington D.C**
Member *December 2024-February 2025*
- Built a multi-agent system from scratch with relaxed and enhanced security pipelines to show how jailbreaks can be transferred through agents
- Presented our demonstration to congressional staffers at the Advanced AI Exhibition with the Center for AI Policy

Skills and Interests

Programming: Python (NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch, Einops), Java, JavaScript, SQL, REST API Development (Postman), Git, C, Linux, R, Tableau , Elixir, React
Machine Learning: Azure, GCP, ETL Pipelines, HuggingFace, Agentic Systems, RAG Systems, Hallucinations
Languages: English (Fluent), Russian (Fluent), French (Advanced)
Other Skills: Public Speaking, Leadership, Project Management, Bilingual Communication, Research
Interests: Water Polo, Mixed Martial Arts(MMA), Improv, Entrepreneurship, Travelling, Reading