

Yim Register (they/them) Applied Scientist + AI/ML Curriculum Developer

PhD in Information Sciences ✉ yimregister@gmail.com ✨ THE FUTURE OF AI CAN BE KIND ✨

AI Curriculum Developer and Responsible AI Applied Scientist with 9+ years of experience in machine learning, technical content development, and AI system prototyping. Combines a strong technical foundation with hands-on engineering skills to build AI software, develop interactive training materials, and translate complex concepts into accessible, code-driven learning experiences. Proficient in Python and AWS services, with experience implementing agentic AI workflows, LLM evaluation pipelines, and red-teaming methodologies. Skilled at implementing improvements to real-world AI systems, including retrieval-augmented generation (RAG) and multi-agent orchestration. Proven ability to design scalable training programs, improve AI system safety and reliability, and communicate the technical foundations of responsible AI and the evolving policy landscape to diverse audiences.

"Together, we create the AI future we need. ♡"

PROFESSIONAL EXPERIENCE

Applied Scientist (2024 - present)

Amazon Web Services (Machine Learning University)

- Designed and developed Python-based agentic AI prototypes and technical labs to translate emerging research into practical implementations for AWS engineers worldwide
- Implemented and evaluated advanced agentic AI patterns, including multi-agent orchestration (with Strands SDK and Amazon Bedrock AgentCore), retrieval-augmented generation (RAG), and LLM evaluation workflows
- Built experimental frameworks for automated red teaming, model evaluation, and safety testing to assess robustness and failure modes of LLM-based agentic systems, with expertise in effectively applying Amazon Bedrock Guardrails for AI safety
- Collaborated with cross-functional teams on initiatives spanning AI regulation, AI safety, sustainability, and accessibility, contributing technical insight and early-stage solutions
- Co-author on Responsible AI Lens from AWS Well-Architected, a global resource for building trustworthy AI

Responsible AI Consultant & AI Literacy Writer (contract Fall 2024)

Microsoft (CELA)

- Designed AI literacy training documentation aimed at AI developers and non-engineers, resulting in informed decision-making during AI system development.
- Created comprehensive documentation on responsible AI practices, ensuring compliance with the EU AI Act and other AI policies, with company-wide reach.

AI Subject Matter Expert & Product Consultant (contract 2022-2023)

Code.org

- Authored professional development materials for using generative AI tools, reaching over 2.5 million educators nationwide.
- Developed instructional documentation on the societal impacts of generative AI, and simple mathematical walkthroughs of machine learning algorithms such as k-nearest neighbors, reaching over 90 million students.
- Evaluated the accuracy of large language models (LLMs) in Python, providing statistical insights that drove model improvements.
- Consulted on human-in-the-loop feature designs to enhance human-AI interaction and prompt engineering efficiency.

Data Science & Machine Learning Curriculum Developer, Instructor (2020-2023)

University of Washington Information Management Master's Program

- Designed and developed curriculum content, including video tutorials, lesson plans, and Jupyter notebooks to teach foundational machine learning concepts as well as advanced topics, creating Python coding exercises to help students understand key algorithms and techniques -- making AI topics accessible to over 300 graduate students, supplemented by publications detailing these tools and presentation at conferences.

PhD Researcher (2018-2024)

University of Washington iSchool

- Conducted qualitative and quantitative evaluations of AI systems to assess their impact on users, focusing on user experience, ethical implications, and system effectiveness; including a rigorous understanding of the AI/ML model.
- Developed user studies to analyze how different AI models affected engineers' behaviors and perceptions, using mixed methods research including interviews, surveys, and statistical analysis in Python and R.
- Implemented experiments to evaluate the social impact of AI, including human-in-the-loop interactions, resulting in actionable insights to improve AI system design and mitigate risks.
- Authored and presented 6 publications accepted to ACM conferences like CHI, CSCW, ICWSM, and AAAI.

Principal Investigator (Directed Research Group 2022)

NSF Secure and Trustworthy Cyberspace Program – Center for an Informed Public

- Led a team to create community outreach materials, including web content and educational guides for high school students to learn about AI ethics, misinformation, and tech policy, engaging over 500 highschool participants.

EDUCATION

University of Washington

🎓 **PhD in Information Sciences:** “The Future of AI Can Be Kind: Strategies for Embedded Ethics in AI Education”

🏆 **Honors:** *National Science Foundation GRFP, Top Scholar Award, Center for an Informed Public Innovation Award, National Computer Science Hero, Gradient Prize Finalist, Susan B. Anthony Award for Activism*

University of Rochester & Khon Kaen University (Thailand)

🎓 **B.S in Brain & Cognitive Sciences + Computer Science, Development & Globalization program at Khon Kaen University**

🔬 **Lab Manager at the Computation and Language Lab** 3+ years researching and applying Bayesian methods to study how adults, infants, toddlers, and primates learn

SKILLS

⚠️ **AI Safety & Safeguarding:** Risk assessment, AI safety audits, AI policy compliance, risk mitigation, system design, AI alignment techniques, human-in-the-loop AI, agentic AI evaluation, fine tuning, AI security, Amazon Bedrock Guardrails, AI sustainability

💻 **Programming & AI skills:** Python, Amazon Bedrock, AWS Services, Strands Agents SDK, Langchain, MCP, A2A, multi-agent orchestration, context engineering, autonomous systems, retrieval augmented generation (RAG), scikit-learn, Jupyter, JavaScript

📄 **Technical Writing:** User guides, API documentation, content creation, curriculum writing, professional development materials, creative writing for education, publication writing

👥 **Education & Content Development:** Professional development courses, corporate training programs, interactive learning experiences, community outreach, 10+ years of experience in in AI and Data Science education for technical audiences

SELECTED PUBLICATIONS

Yim Register and Amy J. Ko. 2020. Learning Machine Learning with Personal Data Helps Stakeholders Ground Advocacy Arguments in Model Mechanics. ACM Conference on International Computing Education Research

Yim Register et al. 2023. Attached to “The algorithm”: Making sense of algorithmic precarity on instagram. CHI Conference on Human Factors in Computing Systems. Yim Register and Emma S. Spiro. Developing Self-Advocacy Skills through Machine Learning Education: The Case of Ad

Recommendation on Facebook. Proceedings of the International AAAI Conference on Web and Social Media. Vol. 16. 2022. (ICWSM) Yim

Register, et al. AI education matters: Guiding our Future AI Leaders with Joy and Justice. AI Matters 8.2 (2022): 22-24. EEAI