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

PhD in Information Sciences

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✨THE FUTURE OF AI CAN BE KIND ✨   🤖 KindByte Consulting LLC

AI Curriculum Developer and Responsible AI Applied Scientist with an extensive background in machine learning and a passion for making AI concepts accessible. 6+ years experience in developing technical content, educational resources, and training programs for diverse audiences. Adept at using code to illustrate AI concepts and create interactive learning experiences, with strong skills in Python and R. Proven ability to develop training programs, describe the current landscape of AI policy, and communicate the technical side of responsible AI effectively.

PROFESSIONAL EXPERIENCE

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 responsibly, 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.
- Focused on responsible AI practices and ethical considerations in AI systems, creating coding exercises to help students understand key algorithms and techniques.
- Supported students in learning the practical applications of Data Science and AI by providing clear, hands-on examples using Python + pandas and scikit-learn.
- Created engaging web-based educational materials using JavaScript or RShiny: 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.
- Developed clear and accessible technical content to educate students on AI risks and benefits, engaging over 500 highschool participants.

Software Engineering Intern, Data Science Curriculum Developer (internship, Summer 2019)

Posit (formerly RStudio)

- Co-authored a "Data Science for Software Engineers" course in R, including detailed lesson plans and technical documentation to support software engineers in applying statistical techniques.

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

🎓**B.S in Brain & Cognitive Sciences + Computer Science**
🔬**Lab Manager at the Computation and Language Lab** *3+ years researching and applying Bayesian methods to study how adults, infants, and primates learn*

SKILLS

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

⚠️**AI Safety & Safeguarding:** Risk assessment, AI safety audits, AI policy compliance, harm reduction protocols, system design, AI alignment techniques, human-in-the-loop AI

💻**Programming & Tools:** Python, R, pandas, scikit-learn, Jupyter, Amazon Bedrock, JavaScript, Ruby on Rails, HTML/CSS.

🧠**Education & Content Development:** Professional development courses, corporate training programs, interactive learning experiences, community outreach, 8+ years of experience in in AI and Data Science education

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*