Harnessing AI For Research

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—— **Abstract** ——————————————————————————

Artificial Intelligence is increasingly being used to both augment existing fields of research and open up new avenues of discovery. From quality control for imaging flow cytometry to computational musicology, modern AI is an exciting new tool for research and thus knowing how to engineer AI systems in a research context is a vital new skill for RSEs to acquire. In this talk, I will outline four different areas of AI: supervised learning, unsupervised learning, interactive learning, and Bayesian learning. For each of these approaches, I will discuss how they typically map to different research problems and explore best practices for RSEs via specific use cases. At the end of the talk, you will have received a high-level overview of AI technologies and their use in research, have seen some cool examples of how AI has been used in a wide range of research areas, and have a good sense of where to go to learn more.