

Harnessing AI For Research

Matthew Johnson

Microsoft Research, Cambridge, United Kingdom
matjoh@microsoft.com

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.

2012 ACM Subject Classification Computing methodologies → Artificial intelligence

Keywords and phrases Artificial intelligence

Digital Object Identifier 10.4230/OASISs.ICCSW.2018.11

Category Invited Talk



© Matthew Johnson;

licensed under Creative Commons License CC-BY

2018 Imperial College Computing Student Workshop (ICCSW 2018).

Editors: Edoardo Pirovano and Eva Graversen; Article No. 11; pp.11:1–11:1

OpenAccess Series in Informatics



OASIS Schloss Dagstuhl – Leibniz-Zentrum für Informatik, Dagstuhl Publishing, Germany