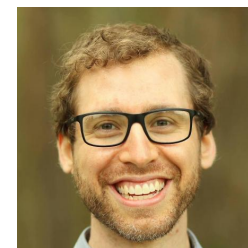
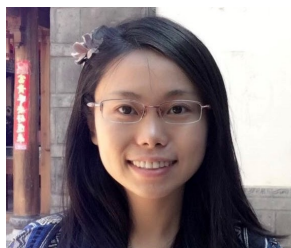


A3D3 Annual Meeting: Education

Matthew Graham, Kate Scholberg
October 7, 2022

A3D3 Seminar Series

- Feb 2022: Kyle S. Cranmer (HEP), “Accelerating Simulation-based Inference”
- Mar 2022: Ashley Villar (MMA) , “Time-domain Astrophysics in the Era of Big Data”
- Apr 2022: Anqi Wu (Neuro), “Understand The Brain Using Interpretable Machine Learning Models”
- May 2022: Zhiru Zhang (HAC), “A Pursuit of Efficient and Accurate Binary Neural Networks”
- June 2022: Georgia Karagiorgi (General), “Machine Learning for Fundamental Physics Discovery with High Resolution Particle Imaging Detectors”
- July 2022: Jonathan Gair (Disting.), “Rapid and robust parameter estimation for gravitational wave observations”
- Aug 2022: Ben Nachman (HEP), “Towards Online Anomaly Detection for Particle Physics”
- Sep 2022: Andreas Sogaard (MMA), “Machine Learning in IceCube”
- Oct 2022: Nick Steinmetz (Neuro), TBC
- Nov 2022: David Pan (HAC), TBC
- Dec 2022: General seminar
- Jan 2023: Distinguished Speaker



A3D3 YouTube Channel



Accelerated AI Algorithm for Data-Driven Discovery

60 subscribers

SUBSCRIBED

HOME
VIDEOS
PLAYLISTS
CHANNELS
ABOUT

Uploads SORT BY

A3D3 Seminar: Machine Learning in IceCube |...

33 views • 3 weeks ago

A3D3 Seminar: Towards Online Anomaly Detection f...

49 views • 1 month ago

A3D3 Seminar: Rapid and robust parameter estimatio...

17 views • 2 months ago

A3D3 Seminar: Machine Learning for Discovery with...

78 views • 3 months ago

A3D3 Seminar: Understand The Brain Using Interpretabl...

57 views • 6 months ago

A3D3 Seminar: Time-domain Astrophysics in the Era of Bi...

86 views • 6 months ago

A3D3 Seminar: Accelerating Simulation-based Inference ...

220 views • 7 months ago

Algorithms and Harware for AI Accelerated Discoveries

92 views • 11 months ago

Understanding & interfacing with the brain: challenges...

110 views • 11 months ago

Artificial Intelligence Accelerated Discoveries At...

139 views • 11 months ago

Machine Learning in the Multi-Messenger Era

56 views • 11 months ago

A3D3 partnering: NeuroAI

Neuro AI IN SEATTLE

AI INSPIRING
NEW NEUROSCIENCE
NEUROSCIENCE
INSPIRING NEW AI

27 - 30

SEPTEMBER

LOCATION

ZILLOW COMMONS IN CSE2
UW Campus, Seattle

SUPPORTED BY

Embassy of France in the United States
NSF AccelNet International Network
for Bio-Inspired Computation
A3D3
Weill Neurohub

Blaise Agüera y Arcas, **GOOGLE RESEARCH**

Frederic Alexandre, **INRIA**

Jeremiah Cohen, **ALLEN INSTITUTE**

Anne Collins, **UC BERKELEY**

Jean Daunizeau, **PARIS BRAIN INSTITUTE**

Anne Draelos, **DUKE**

Boris Gutkin, **ENS**

Hannaneh Hajishirzi, **UW**

Guillaume Lajoie, **MILA**

Yann LeCun, **META**

Ida Momennejad, **MICROSOFT**

Jean-Baptiste Masson, **INSTITUT PASTEUR**

Amy Orsborn, **UW**

Lia Papadopoulos, **OREGON**

Matt Perich, **UNIVERSITY OF MONTREAL**

Raj Rao, **UW**

Blake Richards, **MILA**

Eric Shea-Brown, **UW**

Eli Shlizerman, **UW**

Edgar Walker, **UW**

NSF IN-BIC WORKSHOP

ADVANCES AND CHALLENGES IN AI/ML FOR
NEUROTECHNOLOGIES

INDUSTRY PANEL

REGISTRATION AT NEUROAISEATTLE.ORG

September 27 - International Network for Bio-Inspired Computing meeting

September 28 and 29 - AI & Neuroscience

co-hosted with Office for Science and Technology, Embassy of France in the United States

September 30 - Advances and challenges in AI/ML for neurotechnologies

Education Resources - I

[Google Doc to collect material descriptions](#)

- Classes:
 - MIT, Harris, Computational Data Science in Physics
 - UCSD, Duarte, ML and Particle Physics (Data Science Capstone)
 - UW, Shlizerman/Hsu, Neural Network Methods for Signals in Engineering and Physical Sciences
 - Illinois, Neubauer, Data Analysis and Machine Learning Applications
 - Illinois, Neubauer, Applications of Machine Learning for Instrumentation Physics
 - UW, Orsborn, Neural Computation and Engineering
 - UM, Coughlin, Big Data in Astrophysics
 - Caltech, Graham, Astroinformatics

Education Resources - II

[Google Doc to collect material descriptions](#)

- Tutorials:
 - hls4ml tutorial
- Other:
 - Snowmass WP on “Data Analysis and Machine Learning in Education”
- Research Projects
 - MEng course (“Applied ML for Physicists”) at Illinois (Neubauer)
 - Caltech SURF project on accelerated edge inferencing for astronomical alerts streams
 - ...

Year 2

- Identify platform to host education resources
 - Do we want to define our own approved set?
- Training data repository
 - Gold standard data sets for HEP, MMA, Neuro, HAC
- Strengthening Skills for Career-Ready Students and Postdocs
 - arrange experts offering special seminars or training related to soft skills for A3D3 trainees?
- A3D3 Podcast?