



UNIVERSITY OF
BIRMINGHAM

RESEARCH
SOFTWARE GROUP

Business School and AI

Thursday 24th November, 2022

Dr Jenny Wong

Senior Research Software Engineer, BEAR



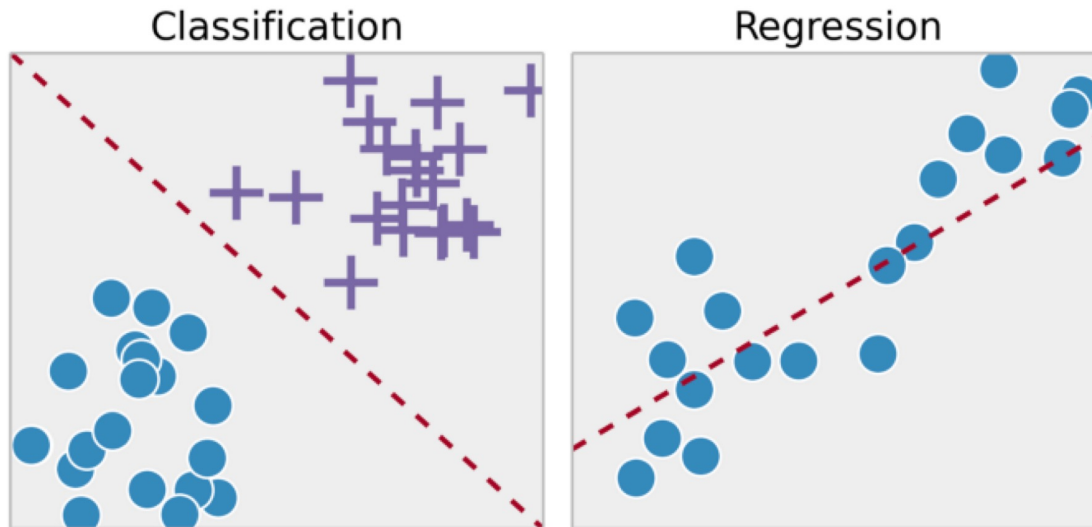
Overview

- AI Software and Tools
- User case studies
 - Claire (Duiyi) Dai - Textual Analysis and Machine Learning in my Economics Research
 - Binzhi Chen - How Bluebear helps Business School Research? From the perspective of econometrics
 - Bowen Liu - When econometrics meets machine learning: application in Environmental Economics

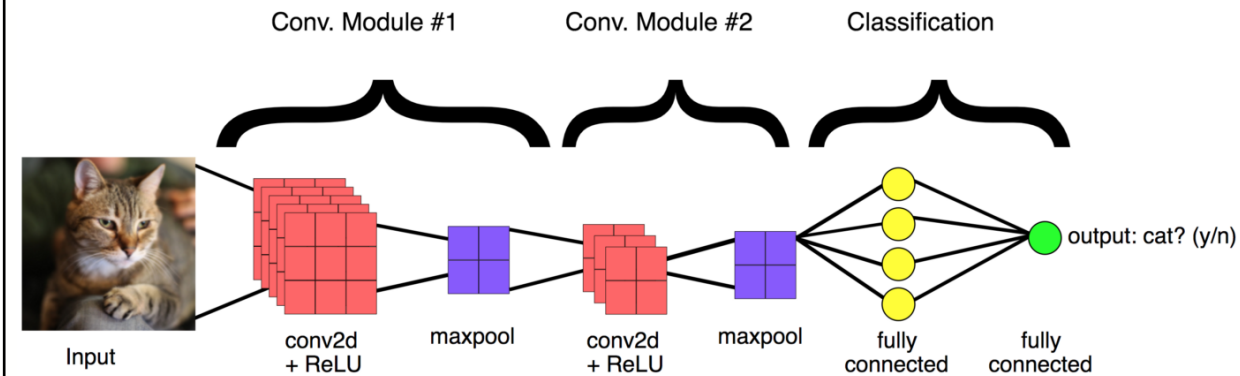


AI: Machine and Deep Learning

MACHINE LEARNING



DEEP LEARNING



UNIVERSITY OF
BIRMINGHAM

RESEARCH
SOFTWARE GROUP

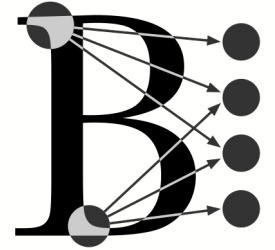
BlueBEAR & Baskerville HPC

BlueBEAR



- Institutional Tier 3 HPC facility
- Available to all researchers at UoB
 - Register a BEAR Project through your PI
 - Have a BEAR Linux account
- Resources
 - 180 nodes
 - 6 GPUs across 4 nodes
 - 3TB of RDS storage per project
- [Link](#) to further information

Baskerville



- National Tier 2 HPC facility
- Available to researchers at UoB on request
 - Register a Baskerville Project through your PI
- Resources
 - 52 nodes
 - 208 GPUs
 - 1TB of RDS storage per project
- [Link](#) to further information



UNIVERSITY OF
BIRMINGHAM

RESEARCH
SOFTWARE GROUP

AI with Python



UNIVERSITY OF
BIRMINGHAM

RESEARCH
SOFTWARE GROUP

AI with

- AER - Applied Econometrics with R
- `quantmod` – Quantitative financial modelling
- `survival` – survival analysis
- `tseries` – Time series analysis and computational finance



UNIVERSITY OF
BIRMINGHAM

RESEARCH
SOFTWARE GROUP

Live Demo

BlueBEAR OnDemand

Files ▾

Jobs ▾

Clusters ▾

Interactive Apps ▾



Help ▾

Logged in as wongj

Log Out



The BlueBEAR portal provides access to a range of Birmingham's supercomputing resources.

This service is provided by Advanced Research Computing as part of access to BlueBEAR - the University's supercomputer. Options from accessing your user and project files, to running interactive jobs, can be found at the top of the screen.

To use this service, you must be registered as a [BlueBEAR](#) user - this means you must be on an appropriate BEAR project which has access to a BlueBEAR resources.

Important messages

BlueBEAR Portal

The BlueBEAR ondemand portal is available to all users of BlueBEAR

[Online Documentation](#) is available

powered by



OnDemand version: v1.8.20



UNIVERSITY OF
BIRMINGHAM

RESEARCH
SOFTWARE GROUP

Further Information

- BEAR <https://intranet.birmingham.ac.uk/it/teams/infrastructure/research/bear/index.aspx>
- Baskerville <https://www.baskerville.ac.uk/>
- Slack bham-rse.slack.com
- IT Service Portal <https://universityofbirmingham.service-now.com/itportal/>
- BEAR Drop-ins <https://intranet.birmingham.ac.uk/it/teams/infrastructure/research/bear/events/public/data-drop-in-sessions.aspx>
- Using R for Introductory Econometrics <http://www.urfie.net/>

