AI and Machine Learning at ASOS.com

A *bit* about ASOS...

- British online fashion retailer with our global HQ in Camden

- 16.5 mil active customers worldwide

- ASOS.com is the most visited fashion website in the world (according to a recent survey)

- Growing 30% year on year

A *bit about myself…*

- Undergraduate MPhys at Leeds

- PhD Theoretical Physics at UCL

- Postdoc at UCL and CNRS in France

- Started working at ASOS as data scientist in Feb 2017

We have a lot of data.

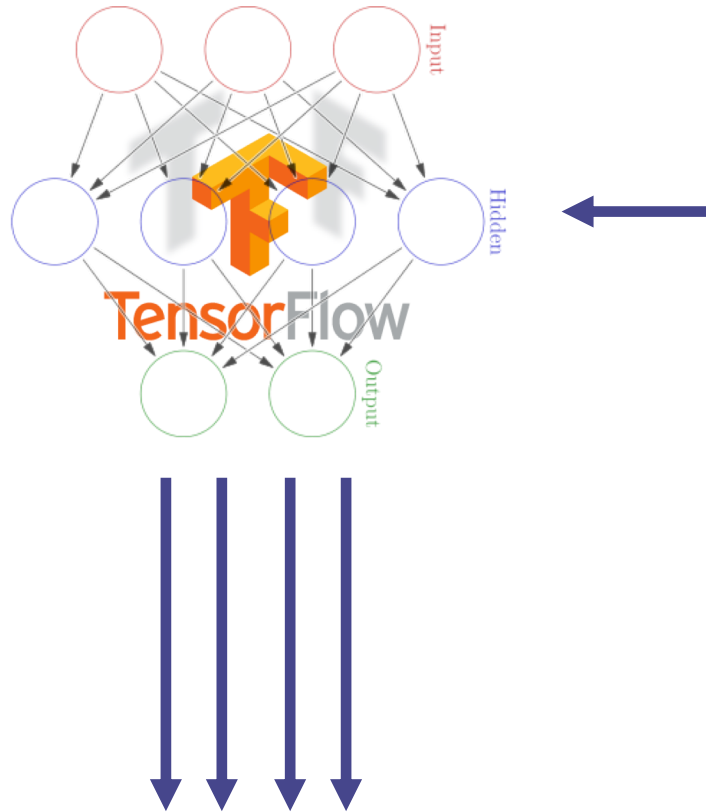## 36 million purchases/week

32 million web sessions/week

5 TB web session data/week

And much more… images, video, social, logistics, search, descriptive text..

BRAND EXPERIENCE

asos

Collaborative

`Space of customer similarity`

Buy

Content

`Space of product similarity`

TensorFlow

Input
Hidden
Output

Hybrid - recommendations

asos

Product visual similarity

$$\mathcal{L} = [m + D(\ \blacksquare\ ,\ \blacksquare\ ) - D(\ \blacksquare\ ,\ \blacksquare\ )]_+$$

Query image

Delivery time prediction

Based on previous deliveries, your parcel will be with you on:

14th June

51%

- 14th June
- 15th June
- 16th June
- 17th June

Based on previous delivery times with standard delivery in your area, your parcel should be with you in 5 days.

⊕ How do I get my parcel quicker?

CONTINUE SHOPPING

Standard delivery time: 7 days

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Publications

KDD2017

Customer Lifetime Value Prediction Using Embeddings

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ECML PKDD 2017
SKOPJE · MACEDONIA

Generalising Random Forest Parameter Optimisation to Include Stability and Cost

C. H. Bryan Liu[1]([✉]), Benjamin Paul Chamberlain[2], Duncan A. Little[1], and Ângelo Cardoso[1]

KDD2018
24th ACM SIGKDD Conference on Knowledge Discovery and Data Mining
August 19 - 23, 2018 | London, United Kingdom

Product Characterisation towards Personalisation

Learning Attributes from Unstructured Data to Recommend Fashion Products

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A Recurrent Neural Network Survival Model: Predicting Web User Return Time

Georg L. Grob[1], Ângelo Cardoso[2], C. H. Bryan Liu[2], Duncan A. Little[2], and Benjamin Paul Chamberlain[1,2]

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