Patrick Lewis BA MSci

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Work / Experience

2018-	**FAIR PhD Student**:	Affiliated with University College London and Facebook AI Research, supervised by Sebastian Riedel. Focusing on building more powerful, efficient and robust neural Question Answering models.
2018-18	**Bloomsbury AI**:	ML Engineer. Researching & developing cutting edge NLP techniques for question answering & knowledge dissemination. Translating & scaling world-leading AI research into production environments.
2016-18	**Healx**:	NLP Engineer. Deep learning for NER, relation extraction, semantic representation learning from structured & unstructured data, knowledgebase construction/completion for drug repurposing for rare diseases.
2015-16	**MSci Research project**:	Developing novel algorithm to recommend academic collaborations & demonstrate unsupervised scientific concept learning using web scraping, neural embeddings & network analysis.
2014	**BAE Systems Applied Intelligence**:	3 month internship prototyping the redesign of mission-critical software.
2013	**BAE Systems Detica**:	3 month internship research project developing software for more accurate circuit design.
2013	**Credit Suisse Spring Program**:	Training program for a technical role within Credit Suisse I.T. department.
2010	**Expedition to Zambia**:	Renovating village schoolhouse, substantial repair work & weatherproofing.

Selected Publications (see patricklewis.io for full list)

· *Question and Answer Test-Train Overlap in Open-Domain QA datasets*, Lewis et al. 2020, Under review
· *Retrieval-Augmented Generation for Knowledge-Intensive NLP Tasks*, Lewis et al. 2020, NeurIPS 2020
· *How Context Affects Language Models' Factual Predictions*, Petroni et al. 2020, AKBC 2020 (Best Paper award)
· *MLQA: Evaluating Cross-lingual Extractive Question Answering* , Lewis et al. 2020, ACL 2020
· *Language Models as Knowledgebases?*, Petroni et al. 2019, EMNLP 2019
· *Unsupervised Question Answering by Cloze Translation*, Lewis et al. 2019, ACL 2019

Education

2012-16	Queens' College Cambridge: BA MSci Natural Sciences (1st Class)	
	MSci:	Physical & Theoretical Chemistry, & Data/NLP Project
	BA:	Chemistry, Statistical Mechanics, Mathematics, Computer Sciences, Materials Sciences.
2007-12	Epsom College, Epsom	
	A Level & EPQ:	Maths (A*) Further Maths (A) Physics (A*) Chemistry (A*) EPQ(A*)
	AS Level & GCSE:	Philosophy (A) Critical Thinking (A) 10 grade A* GCSEs including Maths, English & IT.

Relevant Skills

Coding:	**Expert**:	Python (NumPy, Pandas, Sklearn, Tensorflow, Pytorch, Gensim, NLTK, spaCy, JuPyTer)
	Prior Experience:	JS, JQuery, HTML+CSS, Java, MATLAB, C#, SML
Other:	LaTeX, Gephi, AWS, GCP, Amazon Mechanical Turk, SC clearance 2013 & 2014, UK Driving Licence	

Awards and Commendations

· Led UCL-FAIR team which won 2 tracks of EfficientQA 2020
· Cambridge University Department Prize for "Outstanding Master's Project" (2016)
· Queens' College Foundation Scholarship & Paul W Davies Prize for Chemistry (2016)
· Ranked 1st= intern at Applied Intelligence (2014), EAL Certificate of "Commendable" performance at Detica (2013)
· School Debating & Public speaking teams, regional finalists & champions respectively. History, Physics, Chemistry, Extended Project & academic excellence awards. (2008-2012)

Teamwork / Leadership

· Milner Society President (2014-15): Society for all science students at Queens' College (130 students). Managed tutoring workshops, social events & worked closely with college staff.
· President of Queens' Rugby Club (2014-15): Managed budget, training, social events, safety, kit & administrative duties.
· Head of House (2011-12): Responsible for welfare of 70 pupils, efficient running of house & managing prefect team.
· Epsom College YC President (2010-11): Led team running charity schemes including social events & selling calendars.

Interests and Travel

· Play classical & electric guitar. Performed main parts in 4 plays.
· Vietnam & Europe backpacking (2015), Interrail (2012), Rafting & hiking in Grand Canyon (2011), Zambia Expedition (2010)