VICTORIA SMITH

CONTACT ME

v.smith.20@ucl.ac.uk

https://www.linkedin.com/in/victoria-smith-754602104

https://v-smith.github.io

SKILLS SUMMARY

- **ML and NLP:** Hugging Face, LangChain, scispacy, embeddings, pretraining, fine-tuning, PyTorch, scikit-learn, privacy attacks.
- **Pharmacometric Modeling:** R, nlmixr, NONMEM.
- **Programming:** Python, R, HTML.
- **Good Software Engineering Practises:** GitHub version control, cloud computing, modular code, unit testing.

PUBLICATIONS

- **End-to-End Relation Extraction of Pharmacokinetic Estimates from the Scientific Literature**, Aug 2024, BioNLP @ ACL.
- **Named Entity Recognition of Pharmacokinetic parameters in the scientific literature**, Bioarxiv, Feb 2024.
- **Artificial Intelligence applied to drug design and development**, Jan 2024, Pharmatech Magazine.
- **Identifying and Mitigating Privacy Risks Stemming from Language Models: A Survey**, Sept 2023, Arxiv.

EXTERNAL TRAINING

- Oxford **MLxHealth Summer School** (2023).
- EPSRC **Responsible Innovation** (2022).
- The Turing Institute **AI Ethics & Governance** (2022).
- Conception X **Venture Scientist** (2022).
- PSM1 **Scrum Master** in Agile Software Development (2019).

EXTRA-CURRICULAR

- **Sports and Outdoor Activities:** I enjoy running, cycling, bouldering, hiking, yoga, skiing, and scuba diving.
- **Food:** I am passionate about exploring new cuisines and techniques. I love making pasta and sushi from scratch and have recently taken up artisan chocolate making.

REFERENCES

- Prof. Joseph Standing, Primary Supervisor, j.standing@ucl.ac.uk
- Dr. Frank Kloprogge, Secondary Supervisor, f.kloprogge@ucl.ac.uk
- Dr. Watjana Lilaonitkul, Secondary Supervisor and PGTA module lead, watjana.lilaonitkul.16@ucl.ac.uk

PERSONAL PROFILE

PhD Student in AI-Enabled Healthcare at UCL with a Biomedical background and expertise in Biomedical Information Extraction, NLP, and Machine Learning. I am passionate about leveraging computational techniques to address complex challenges in healthcare.

EDUCATION

PhD Student on the UKRI AI-Enabled Healthcare Systems CDT

University College London | Sept 2021-Current

My research focuses on extracting and structuring pharmacokinetic information from tables and text in biomedical literature using language models and NLP techniques. I have experience developing high-quality annotated datasets and training language models for text classification, named entity recognition, relation extraction and entity linking.

PGCert in Statistical Data Science

Birkbeck University | 2021-2022 | Merit

I completed modules in calculus, algebra, and statistics, which provided me a solid foundation in the mathematics underlying for data science and machine learning.

MRes AI-Enabled Healthcare Systems

University College London | 2020-2021 | Distinction

In my research project I developed a multi-label classification pipeline for pharmacokinetic tables in PyTorch. I gained expertise in handling imbalanced data through various methods, including data augmentation techniques. I also completed modules in software development, pharmacometric modelling, and electronic health records (EHRs).

MSci Neuroscience

University College London | 2014-2018 | Distinction

I have a strong background in biomedical research, my research specialised in analysis of gene expression in animal models of Alzheimer's disease.

RESEARCH EXPERIENCE

Data Scientist Internship

NHS England | June 2023–November 2023 (current)

My research project focused on Investigating Privacy Concerns and Mitigations in Clinical Large Language Models. I developed applied skills and knowledge in LLM pre-training, differential privacy, model editing and unlearning.

Enrichment Studentship

The Alan Turing Institute | October 2022-October 2023 (current)

I worked with the Safe and Ethical AI Team on a paper surveying the current state of research on privacy in LLMs. I also received specialised training in AI Ethics, Software Development Practices and Data Science Research.

WORK EXPERIENCE

PGTA in Digital Health Technologies

UCL Global Business School for Health | Sep 2023-Feb 2024

As lead TA: I co-designed the module content with the module lead, lectured and led practicals, developed the marking key and led marking coordination between TAs, and supervised students in developing healthcare chatbots and full business cases.

Technology Graduate Scheme

Vodafone Group | 2018–2020

I gained experience working across cybersecurity, IT operations, and business IT. I participated in two data science hackathons, where I developed an IoT solution for event capacity management and an employee lift-sharing app. I also co-organised a global IT-operations conference in Milan.