Kamil Bujel

MPhil Student · Computer Science

Department of Computer Science and Technology, University of Cambridge
15 JJ Thomson Avenue, Cambridge, CB3 0FD, UK

+44 7547 787 613 | kamilbujel@gmail.com | bujol12 | bujol12 | @KamilBujel

Education

University of Cambridge, King's College *Cambridge, UK*

Master of Philosophy in Advanced Computer Science *Sep 2022 - Jun 2023*

- Predicted Grade: Distinction (80%)
- Advisors: Dr Challenger Mishra, Prof Pietro Liò
- Thesis: Learning & Breaking Symmetries in Geometric Deep Learning.
- Modules: Theory of Deep Learning, Representation Learning on Graphs and Networks, Advanced Topics in Machine Learning, Machine Learning for Language Processing, Multicore Semantics and Programming.

Imperial College London *London, UK*

Bachelor of Engineering in Maths & Computer Science *Sep 2019 - Jun 2022*

- Grade: First Class Honours (82%)
- Advisor: Dr Marek Rei
- Dissertation: Finding the Needle in a Haystack: Unsupervised Rationale Extraction from Long Text Classifiers (90%)
- Relevant Modules: Introduction to Machine Learning, Methods for Data Science, Computational Linear Algebra, Probability and Statistics, Statistical Modelling, Multivariate Calculus and Differential Equations, Real Analysis, Numerical Analysis.

Experience

Jump Trading *London, UK*

Software Engineering Intern *Jul 2022 - Sep 2022*

- Core Development team, work on a C++17 codebase.
- Develop a new system processing incoming data from exchanges.

Bloomberg LP *London, UK*

Software Engineering Intern *Jun 2021 - Sep 2021*

- Work on the Asset & Investment Manager (AIM),a buy-side enterprise portfolio management, trading, compliance & operations offering.
- Improve performance and scalability of a real-time compliance gateaway, reducing maximum response delay times from 1-2 minutes to 1-5 seconds and decreasing request queue size by 50% with multithreading.

Imperial College London *London, UK*

Undergraduate Research Opportunities Programme *Jun 2020 - Sep 2020*

- Supervisor: Dr Marek Rei
- Topic: Zero-shot Sequence Labeling for Transformer-based Sentence Classifiers. Published at RepL4NLP workshop at ACL 2021.

GOGOX *Hong Kong & Remote*

Data Scientist & Data Engineer *Jul 2017 - May 2021*

- Research and develop Route Optimisation tool with clustering methods that allow to optimise routes for up to 5000 waypoints. Head the app integration of the algorithm in Taiwan.
- Lead work on Ops Data Brain – cutting-edge real-time event-driven visualisation platform currently used on a daily basis by Operations teams in 6 countries.
- Design, deploy, transition and manage workflows on the persistent Spark cluster and thus reduce core ETL failure rate from 20% to 5%.

Publications

Published

Kamil Bujel, Helen Yannakoudakis, Marek Rei. 2021. *Zero-shot Sequence Labeling for Transformer-based Sentence Classifiers.* The 6th Workshop on Representation Learning for NLP (RepL4NLP-2021) at ACL 2021.

In Review

Kamil Bujel*, Yonatan Gideoni*, Chaitanya Joshi, Petar Veličković, Pietro Liò. 2023. *Group-Invariant Global Pooling.* Synergy of Scientific and Machine Learning Modeling at ICML 2023. To be submitted to ICLR 2024.

Kamil Bujel, Andrew Caines, Helen Yannakoudakis, Marek Rei. 2023. *Finding the Needle in a Haystack: Unsupervised Rationale Extraction from Long Text Classifiers.* EMNLP 2023.

Pre-prints

Kamil Bujel, Feiko Lai, Michal Szczecinski, Winnie So, and Miguel Fernandez. 2017. *Solving high volume capacitated vehicle routing problem with time windows using recursive-DBSCAN clustering algorithm.*

Awards, Fellowships, & Grants

2022 **Dean's List**, Imperial College London
Aspect Capital Final Year Undergraduate Project Prize, Imperial College London

2021 **ACL 2021 Attendance Grant**, Imperial College London

2020 **UROP Bursary**, Department of Computing, Imperial College London

Presentations

November 2022. *Unsupervised Rationale Extraction from Long Text Classifiers*. Invited talk: ALTA Institute. Department of Computer Science and Technology. Cambridge. UK.

Teaching Experience

Personal Programming Tutor
Imperial College London *Sep 2021 - Jun 2022*
Computing Practical 1 - lab demonstration

Undergraduate Teaching Assistant
Imperial College London *Sep 2020 - Jun 2022*
Computing Practical 1 - weekly programming tutorials and marking for 10 students

Skills

Languages: Python, C++, Java, C, SQL, Haskell

Technologies/Frameworks: Linux, Spark, pyTorch, Docker, HuggingFace, Tensorflow, Scikit-Learn, Tensorflow, JAX, NumPy