LISA ALAZRAKI

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SELECTED PUBLICATIONS

Alazraki, et al. Optimal tool selection with large language models, In prep.

Alazraki, et al. How (not) to ensemble LVLMs for VQA, ICBINB workshop, NeurIPS 2023.

Alazraki, et al. An Empathetic Al Coach for Self-Attachment Therapy, IEEE CogMI, 2021.

PATENTS

Deep Learning System for Navigating Feedback, WO Patent WO2023224672A1. Inventors: H. Harkous, S.T. Peddinti, R. Khandelwal, A. Srivastava, N. Taft, L. Alazraki.

GRANTS AND AWARDS

International Travel Award, The IET, 2023.

Imperial College Trust Grant, Imperial College London, 2023.

Annual Grant, Richard Stapley Trust, 2023.

Best Student Paper Award, IEEE International Conference on Cognitive Machine Intelligence (CogMI), 2022.

Department of Computing PhD Scholarship, Imperial College London, 2022.

Distinguished MSc Dissertation ('outstanding technical achievement and presentation'), Imperial College London, 2021.

DeepMind MSc Scholarship, Imperial College London, 2020.

Faculty commendation for achieving one of the highest academic results university-wide in the course 'Algorithms, Data Structures and Computability', Open University, 2017.

Leslie Walshaw Award in Mathematics, Open University, 2016.

EDUCATION

2022-2026

Imperial College London, PhD Computing

- Advised by Dr Marek Rei @ the Language and Multimodal AI (LAMA) Lab.
- Research focus: Strategic reasoning and planning with large language models.

2020-2021

Imperial College London, MSc Computing (AI and Machine Learning)

• Grade: Distinction (with 'Distinguished Dissertation' award).

2019-2020

The Open University, Graduate Certificate in Theoretical Statistics & Probability

· Grade: Distinction.

2015-2019

The Open University, BSc (Hons) Computing & IT and Mathematics

• Grade: First Class Honours.

WORK EXPERIENCE

Jan 2022 - Present

Imperial College London, Graduate Teaching Assistant

- Provide teaching and lab support for courses in Machine Learning, Natural Language Processing, Graphs and Algorithms (~200 students in each course).
- Conceived and wrote the specifications of 10+ final degree projects at undergraduate and postgraduate level.
- Co-supervised 20+ students working on their final projects.

Jun - Sep 2023

Google Research, Research Intern

- Investigated ensembling large vision-language models to improve VQA.
- Developed a method that beats SOTA by ~5% on Encyclopedic-VQA.
- Wrote and presented a paper at the ICBINB workshop @NeurIPS 2023.

Oct - Dec 2022

Google, Student Researcher

- Co-developed a system for open-vocabulary extreme multilabel classification of user feedback, using large language models.
- Applied for and was granted a global patent as the system's co-inventor.

Jun - Sep 2022

Google, Research Intern

- Developed a new pipeline for retrieval-augmented generation of customer issues based on T5 that was deployed to production.
- Obtained a tenfold increase in recall of existing issues over the previously used model.
- Achieved comparable semantic accuracy for the generation of new issues on demand.

Sep - Dec 2021

Aveni, Graduate Software Engineer

- Developed new features to facilitate onboarding three new institutional clients.
- Improved the front-end and back-end of Aveni's flagship web application for speech analytics.
- Consistently delivered 2-3 tickets per two-week sprint in a fast-paced Scrum setting.

SKILLS

Programming Languages Python, Bash, JavaScript, TypeScript, Java, MATLAB, Lua, Solidity, Prolog.

Frameworks and Libraries PyTorch, NumPy, Pandas, Scikit-learn, SciPy, Seaborn, Matplotlib, Plotly, HuggingFace, NLTK, SpaCy, Jinja2, React, OpenCV, TensorFlow, Keras.