LISA ALAZRAKI

lisa.alazraki20@imperial.ac.uk • Website • Scholar • GitHub • Linkedin • EU Citizen, UK Settled Status

PhD student in the NLP Group at Imperial College London. Research interests: generalisable learning and reasoning, agents, robustness.

EDUCATION

Imperial College London, *PhD Computing* — Supervisor: Marek Rei — *2027*
Imperial College London, *MSc Computing (AI and Machine Learning)* — Classification: Distinction — *2021*
The Open University, *Grad. Cert. Theoretical Statistics and Probability* — Classification: Distinction — *2020*
The Open University, *BSc (Hons) Computing & IT and Mathematics* — Classification: 1st Class — *2019*

Scholarships and awards: IX-WAI Early Career Development Grant 2025 • Imperial Computing Conference 2024 Poster Competition First Prize IET Research Awards 2024 – Postgraduate Prize • Turing Institute Placement Award 2024/25 • Sir Richard Stapley Trust Annual Grant 2024 Imperial College Trust Grant 2023 • IET Travel Award 2023 • Sir Richard Stapley Trust Annual Grant 2023 • CogMI 2022 Best Student Paper EPSRC Doctoral Scholarship 2022 • Imperial College London Distinguished MSc Dissertation Award 2021 • DeepMind MSc Scholarship 2020/21 Open University Official Commendation from the Faculty of Maths, Computing and Technology 2017 • Leslie Walshaw Award 2016 in Mathematics

EXPERIENCE

Meta, *Research Scientist Intern* • London, UK — *Jun - Dec 2025*

- Manager: Akhil Mathur. Team: Llama Agents.

Cohere, *Research Intern* • London, UK — *Jun - Dec 2024*

- Manager: Max Bartolo. Team: Command Post-training.
- Developed a reinforcement learning pipeline for reverse engineering human preferences that boosts LLM-as-a-judge evaluation.
- Investigated implicit learning from mistakes, showing LLMs attain higher accuracy when not shown explicit corrective feedback.
- Completed two distinct research projects at the same time, resulting in first-author papers at NeurIPS and EMNLP respectively.

Google, *Research Intern* • Amsterdam, Netherlands — *Jun - Sep 2023*

- Manager: Thomas Mensink. Team: Perception.
- Developed a model-ensembling framework for knowledge-intensive VQA that beats SOTA by 5% on Encyclopedic-VQA.
- Presented the resulting publication at ICBINB at NeurIPS 2023.

Google, *Student Researcher* • London, UK — *Oct - Dec 2022*
Research Intern • Zurich, Switzerland — *Jun - Sep 2022*

- Manager: Hamza Harkous. Team: Applied Privacy Research.
- Developed a new pipeline for retrieval-augmented generation of user issues that was deployed to production.
- Improved recall of existing issues by 10x over the previous model, with comparable semantic accuracy for new issue generation.
- Granted a global patent as co-inventor of the overall system for navigating user feedback.

SELECTED PAPERS

AgentCoMa: A Compositional Benchmark Mixing Commonsense and Math Reasoning in Real-World Scenarios, *In review* — *2025*
Lisa Alazraki, Lihu Chen, Ana Brassard, Joe Stacey, Hossein A. Rahmani, Marek Rei

Efficient Data Mixing for Language Model Pre-Training, *In review* — *2025*
Kevin Zhou, Lisa Alazraki, Kris Cao, Marek Rei

Improving the OOD Performance of Closed-Source LLMs Through Strategic Data Selection, *In review* — *2025*
Joe Stacey, Lisa Alazraki, Aran Ubhi, Beyza Ermis, Aaron Mueller, Marek Rei

Reverse Engineering Human Preferences with Reinforcement Learning, *NeurIPS 2025 (Spotlight)* — *2025*
Lisa Alazraki, Yi Chern Tan, Jon Ander Campos, Maximilian Mozes, Marek Rei, Max Bartolo

No Need for Explanations: LLMs Can Implicitly Learn from Mistakes In-context, *EMNLP 2025 (Oral)* — *2025*
Lisa Alazraki, Maximilian Mozes, Jon Ander Campos, Yi Chern Tan, Marek Rei, Max Bartolo

Enhancing LLM Robustness to Perturbed Instructions: An Empirical Study, *ICLR 2025 BuildingTrust* — *2025*
Aryan Agrawal*, Lisa Alazraki*, Shahin Honarvar, Marek Rei (*Equal contribution)

How can representation dimension dominate structurally pruned LLMs?, *ICLR 2025 SLLM* — *2025*
Mingue Xu, Lisa Alazraki, Danilo Mandic

Meta-reasoning Improves Tool Use in Large Language Models, *NAACL 2025 Findings* — *2024*
Lisa Alazraki, Marek Rei

How (not) to ensemble LVLMs for VQA, *NeurIPS 2023 ICBINB* — *2023*
Lisa Alazraki, Lluis Castrejon, Mostafa Dehghani, Fantine Huot, Jasper Uijlings, Thomas Mensink

SKILLS

Programming languages — Python, TypeScript, JavaScript, Java, Lua, MATLAB/Octave, Maxima, Solidity, Prolog, Unix/Bash, HTML, CSS
Libraries / frameworks — PyTorch, TensorFlow, Keras, NumPy, Pandas, Scikit-learn, Transformers, NLTK, Jinja2, Matplotlib, React, Flask