# Meghdad Kurmanji

Cambridge, UK – Global Talent Visa Holder

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## Professional Summary

Researcher in machine learning and data systems with 8+ years of experience developing scalable algorithms and collaborating with industry partners (Google DeepMind, Huawei). Expertise in decentralized (LLM) pretraining, machine unlearning, continual learning, and large-scale data pipelines; proven record of top-tier publications, competitive funding acquisition (€530k), and cross-functional leadership.

## Experience

**University of Cambridge** — **Cambridge, UK**

*Postdoctoral Research Associate* — *2024–Present*

- Delivered three research projects within first six months, meeting all milestones.
- Led proposal writing for the SPRIN-D competition, securing €530k funding as technical lead.
- Increased team paper acceptance and on-time submission rates by 20%.
- Publishing in top venues including NeurIPS and ICLR.
- Advancing research on decentralized LLM pretraining and machine unlearning.

**University of Warwick** — **Coventry, UK**

*Graduate Research Assistant* — *2020–2024*

- (Co-)authored 7 papers in NeurIPS, SIGMOD, and CIDR.
- Designed a continual-learning framework that outperformed SOTA $> 10\times$ in throughput.
- Developed an unlearning algorithm beating SOTA by 10% across benchmarks.
- Secured £150k Huawei grant for machine-learning-based indexing research.
- Initiated collaboration between Warwick ML-for-Systems Lab and Google DeepMind.

**Iran Telecommunication Research Center (ITRC)** — **Tehran, Iran**

*Data Engineer* — *2019–2020*

- Built an end-to-end data pipeline (crawl $\rightarrow$ Hadoop $\rightarrow$ OLAP) reducing data onboarding time $5\times$.
- Implemented ETL workflows enabling a $5\times$ query speed-up for BI reporting.
- Integrated ElasticSearch with PowerBI, cutting weekly report delays by 60%.

**Refah Retail Chain Stores Co.** — **Tehran, Iran**

*Machine Learning Engineer* — *2017–2019*

- Developed a real-time (¡100 ms) vision-based customer counter (81% accuracy) deployed across 20 stores.
- Created an in-store heat-map generator to identify crowded zones, informing staffing decisions.
- Engineered a product recommendation model (LSTM-CNN) boosting active customer engagement by 15%.
- Delivered customer behaviour analysis with regression on time-series data, achieving 60% return-prediction accuracy.

**Sensifai** — **Belgium, remote**

*Deep Learning Engineer* — *2016–2017*

- Increased acoustic scene-detection accuracy by 9% using multimodal transfer learning.
- Built an 88%-accurate music-mood classifier via spectrogram feature engineering.
- Optimised distributed video-crawling pipeline, achieving $1.8\times$ throughput.

## Education

**University of Warwick** — **Coventry, UK**

*Ph.D. in Computer Science* — *2020–2024*

Thesis: *Adaptability of Machine Learning Based Data Systems*

- Conducted the first comprehensive empirical analysis of SOTA machine unlearning for learned data systems (SIGMOD '24).
- Collaborated with Google DeepMind & Google Research to launch the first NeurIPS unlearning challenge (2023).
- Developed **SCRUB**, a SOTA unlearning algorithm for large-scale deep models (NeurIPS '23).
- Created **DDUp**, a continual-learning framework that improves adaptability of learned data systems $10\times$ (SIGMOD '23).

**Tarbiat Modares University** **Tehran, Iran**
*M.Sc. in Computer Science, GPA: 3.67/4* *2014–2017*
Dissertation: Hand Gesture Recognition Using Deep Learning Models
- Proposed a 2D-CNN video HGR model outperforming 3D-CNN baselines in accuracy and efficiency.

**Isfahan University of Technology** **Isfahan, Iran**
*B.Sc. in Computer Engineering, GPA: 3.15/4* *2010–2014*
Capstone: Simulated CDMA signal modulation using Verilog for FPGA implementation.

## Selected Publications

**ICLR 2025**: DEPT: Decoupled Embeddings for Pre-training Language Models (top 1%).
**NeurIPS 2024**: What Makes Unlearning Hard and What to Do About It.
**SIGMOD 2024**: Machine Unlearning in Learned Database Systems.
**NeurIPS 2023**: Towards Unbounded Machine Unlearning.
**SIGMOD 2023**: Detect, Distill and Update: Learned DB Systems Facing OOD Data.
Full list: `https://scholar.google.com/citations?user=7t9HbecAAAAJ`

## Skills

**Machine Learning**: Supervised, Semi-/Unsupervised, Generative Models, Language Models, Machine Unlearning.
**Programming**: Python, C++.
**Frameworks**: PyTorch, TensorFlow, Hugging Face, Ray, LangChain, Weights & Biases.
**Data Systems**: Relational & NoSQL DBs, SQL, Hadoop, HBase, Hive, ElasticSearch.
**Statistics**: Statistical Inference, Probabilistic Graphical Models.

## Honors & Awards

**2025**: SIGMOD Jim Gray Doctoral Dissertation Honorable Mention.
**2024-2025**: Secured €530k SPRIN-D grant as co-lead of *CambridgeFlower*.
**2023**: Organizer, NeurIPS Machine Unlearning Workshop.
**2021**: Best Presentation Award, WPCCS, University of Warwick.
**2020–24**: Computer Science Graduate Scholarship (£25k p.a.), University of Warwick.
**2020–24**: Research Grant (£15k p.a.), Huawei Dublin.
**2010**: Top 0.01% in Iranian national entrance exam (300k applicants).

## References

Available upon request.

Prof. Nic Lane, University of Cambridge
Prof. Peter Triantafillou, University of Warwick
Dr. Eleni Triantafillou, Google DeepMind