Hossein A. (Saeed) Rahmani

CONTACT INFORMATION	✉ hossein.rahmani.22@ucl.ac.uk	UCL Centre for Artificial Intelligence
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	G Google Scholar	United Kingdom, WC1V 6BH

</> **Internship:** *Actively seeking internship or student research opportunities throughout the year.*

RESEARCH INTERESTS

❑ **LLM Evaluation and Benchmark**   ❑ **Synthetic Data Generation**
❑ **Automatic Evaluation (LLM-as-a-Judge)**   ❑ **Personalised LLM Alignment**
❑ LLM Reasoning and Planning   ❑ LLM Self-Improvement
❑ Resonsible RecSys/Search   ❑ Search and Retrieval

EDUCATION

University College London   London, United Kingdom
Ph.D. in Computer Science   Dec. 2022 – Nov. 2026 (*Expected*)
- **Affiliation**: UCL Web Intelligent Group
- **Advisors and Mentors**: Prof. Emine Yilmaz and Nick Craswell

University of Zanjan   Zanjan, Iran
M.Sc. in Computer Engineering (Distinction)   Sep. 2016 – Feb. 2020
- **Thesis**: Context-aware Point-of-Interest Recommender System
- **Advisors and Mentors**: Prof. Mohsen Afsharchi and Dr. Mitra Baratchi

INTERNSHIP EXPERIENCE

Thomson Reuters Labs   London, United Kingdom
Applied Scientist Intern - NLP   Sep. 2023 – July. 2024
- Supervised by Prof. Dell Zhang and Dr. Grace Lee
- Working on LLMs for Legal Tasks Evaluation

Amazon Alexa AI   London, United Kingdom
Alexa Prize TaskBot Challenge   Apr. 2021 – Apr. 2022
- $250,000 Research Grant

Università della Svizzera italiana (USI)   Lugano, Switzerland
Research Intern, Information Retrieval Group   Sep. 2019 – Dec. 2019
- Supervised by Prof. Fabio Crestani
- Working on Context-aware Recommendation Systems

SELECTED PUBLICATIONS

Full list, see
G SCHOLAR

Preprints & Under Submission

18. **Do LLMs Favor Towards Synthetic Test Collection for Evaluation?** *Wroking Progress*
    Hossein A. Rahmani, Varsha Ramineni, Emine Yilmaz, Nick Craswell, Bhaskar Mitra

17. **LLMs-as-a-Rel: Benchmarking LLMs for Automatic Relevance Judgment**   *Wroking Progress*
    Hossein A. Rahmani, Emine Yilmaz, Nick Craswell, Bhaskar Mitra, Paul Thomas, Charles L. A. Clarke, Mohammad Aliannejadi, Clemencia Siro, Guglielmo Faggioli

16. **JudgeBlender: Ensembling Judgments for Automatic Relevance Assessment**   *Under Review*
    Hossein A. Rahmani, Emine Yilmaz, Nick Craswell, Bhaskar Mitra

15. **Large Language Models for Legal Tasks Evaluation** *Under Review*
    <u>Hossein A. Rahmani</u>, Risako Owan, Grace E. Lee, Sally Gao, Frank Schilder,
    Dell Zhang, Emine Yilmaz

14. **LLMJudge: LLMs for Relevance Judgments** *arXiv 2024*
    <u>Hossein A. Rahmani</u>, Emine Yilmaz, Nick Craswell, Bhaskar Mitra, Paul Thomas,
    Charles L. A. Clarke, Mohammad Aliannejadi, Clemencia Siro, Guglielmo Faggioli

13. **SynDL: A Large-Scale Synthetic Test Collection for Passage Retrieval** *arXiv 2024*
    <u>Hossein A. Rahmani</u>, Xi Wang, Emine Yilmaz, Nick Craswell, Bhaskar Mitra, Paul Thomas
    Submitted to The Web Conference (TheWebConf) 2025

12. **Understanding the Role of User Profile in the Personalization of LLMs** *arXiv 2024*
    Bin Wu, Zhengyan Shi, <u>Hossein A. Rahmani</u>, Varsha Ramineni, Emine Yilmaz

(Selected) Peer-reviewed Conference

11. **Beyond Internal Data: Constructing Complete Datasets for Fairness Testing** *NeurIPS, 2024*
    Varsha Ramineni, <u>Hossein A. Rahmani</u>, David Berber, Emine Yilmaz
    Algorithmic Fairness through the Lens of Metrics and Evaluation at NeurIPS 2024

10. **LLM4Eval: Large Language Model for Evaluation in IR** *SIGIR, 2024*
    <u>Hossein A. Rahmani</u>, Clemencia Siro, Mohammad Aliannejadi, Nick Craswell,
    Charles L. A. Clarke, Guglielmo Faggioli, Bhaskar Mitra, Paul Thomas, Emine Yilmaz

9. **Synthetic Test Collections for Retrieval Evaluation** *SIGIR, 2024*
   <u>Hossein A. Rahmani</u>, Nick Craswell, Emine Yilmaz, Bhaskar Mitra, Daniel Campos

8. **Natural Language User Profiles for Transparent and Scrutable Recommendations** *ACL, 2024*
   Jerome Ramos, <u>Hossein A. Rahmani</u>, Xi Wang, Xiao Fu, Aldo Lipani

7. **Clarifying the Path to User Satisfaction: An Investigation into Clarification Usefulness** *EACL, 2024*
   <u>Hossein A. Rahmani</u>, Xi Wang, Mohammad Aliannejadi, Mohammadmehdi Naghiaei,
   Emine Yilmaz

6. **Improving Conversational Recommendation Systems via Bias Analysis and Language-Model-Enhanced Data Augmentation** *EMNLP, 2023*
   Xi Wang, <u>Hossein A. Rahmani</u>, Jiqun Liu, Emine Yilmaz

5. **Do LLMs Selectively Encode the Goal of an Agent's Reach?** *TOM@ICML, 2023*
   Laura Ruis, Arduin Findeis, Herbie Bradley, <u>Hossein A. Rahmani</u>,
   Kyoung Whan Choe, Edward Grefenstette, Tim Rocktaschel

4. **A Survey on Asking Clarification Questions Datasets in Conversational Systems** *ACL, 2023*
   <u>Hossein A. Rahmani</u>, Xi Wang, Yue Feng, Qiang Zhang, Emine Yilmaz, Aldo Lipani

3. **When and What to Ask Through World States and Text Instructions** *IGLU@NeurIPS, 2023*
   Zhengxiang Shi, Jerome Ramos, To Eun Kim, Xi Wang, <u>Hossein A. Rahmani</u>, Aldo Lipani

2. **Towards Confidence-aware Calibrated Recommendation** *CIKM, 2022*
Mohammadmehdi Naghiaei, <u>Hossein A. Rahmani</u>, Mohammad Aliannejadi, Nasim Sonboli
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1. **Exploring the Impact of Temporal Bias in Point-of-Interest Recommendation** *RecSys, 2022*
<u>Hossein A. Rahmani</u>, Mohammadmehdi Naghiaei, Ali Tourani, Yashar Deldjoo
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0. **Experiments on Generalizability of User-Oriented Fairness in Recommender Systems** *SIGIR, 2022*
<u>Hossein A. Rahmani</u>, Mohammadmehdi Naghiaei, Mahdi Dehghan, Mohammad Aliannejadi
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-1. **CPFair: Personalized Consumer and Producer Fairness Re-ranking for Recommender Systems** *SIGIR, 2022*
Mohammadmehdi Naghiaei, <u>Hossein A. Rahmani</u>, Yashar Deldjoo
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🏅 **AWARDS, GRANTS, AND FUNDING**	Alan Turing Enrichment Schema Placement Award, The Alan Turing Institute, UK	2024
	Ranked 1st in TREC iKAT 2023, LLMs for Conversational Search	2023
	NeurIPS 2022 IGLU Challenge Research Prize	2022
	Amazon Alexa Prize Competition Research Grant	2022
	UCL PhD Studentship, UKRI CDT in Foundational AI, UCL	2022 – 2026
	School of AI Scholarship, Pi School, Italy	2021
	Student Registration Grant for attending CSCW	2021
	Student Registration Grant for attending CIKM	2021
	Third-rank Graduate Amongst MSc Students, University of Zanjan, Iran	2020
	Student Registration and Travel Grant for attending MediaEval Benchmark	2019
	Student Registration Grant for attending CLEF	2019
	SERI Mobility Grant, Zurich University of Applied Sciences (ZHAW), Switzerland	2019
	Data Science Winter School Grant, University of Bonn, Germany	2018
	Third-rank Graduate Amongst BSc Students, University of Zanjan, Iran	2016
	Ranked 3rd in Technical University Olympiad, Technical and Vocational University, Iran	2013
	Honorary Admission to Bachelor Program, Technical University of Shiraz, Iran	2013

WORK EXPERIENCE	**Virtual Manufacturing Inc.**	California, US
	Applied Scientist	Oct. 2021 – Nov. 2022
	TVConal	Singapore, Singapore
	Machine Learning Engineer	Jul. 2021 – Oct. 2021
	Pi School	Room, Italy
	Research Scholar	Apr. 2021 – Jun. 2021
	Sanay Co.	Zanjan, Iran
	Data Scientist	Apr. 2020 – Jan. 2021

TEACHING EXPERIENCE	**University College London**, Teaching Assistant	London, United Kingdom
	Artificial Intelligence for Sustainable Development (Prof. Maria Perez-Ortiz)	
	Foundation of Artificial Intelligence (Dr. Sahan Bulathwela)	
	Information Retrieval and Data Mining (Prof. Emine Yilmaz)	

INVITED TALKS	**Fairness and Bias in Recommender Systems**	2023
	QIAU, Iran	

Generazibility of User Fairness in Recommender Systems 2023
Mila x Vector Institute, Canada

Personalized Context-Aware POI Recommendation 2019
Universita della Svizzera Italiana, Switzerland

SERVICES
Organizational Activities
- Organizing LLMJudge Challange at SIGIR 2024   Feb. 2024 – Aug. 2024
- Co-organizing LLM4Eval Workshop at SIGIR 2024   Feb. 2024 – Jul. 2024
- Co-organizing TREC Deep Learning Track 2023   Jul. 2023 – Nov. 2023
- WITalk: WI Talk Series on NLP and IR, UCL AI Center   Oct. 2023 – Feb. 2024

Program Committee and/or Reviewer
- NLP Venues: ACL ARR (Feb. 2023 – Present), ACL (2023, 2024), EMNLP (2022 – 2024)
- IR Venues: ECML/PKDD (2021), WSDM (2021), SIGIR (2022, 2023), ECIR (2022 – 2024)
- ML Venues: NeurIPS (2024), AAAI (2023, 2024)

SKILLS
- **Programming Languages:** Python, Java, C#
- **Tools:** PyTorch, HuggingFace, NumPy, SciPy, Pandas, Seaborn, NLTK, Matplotlib, Flask, RESTful API
- **Database Systems:** MS SQL Server, MySQL, SQLite, MongoDB
- **Soft Skills:** Time Management, Team working, Problem-solving, Fast-Learning
- **Languages:** Persian (Native), Tabari (Fluent), English (Proficient), Arabic (Familiar)