

## CURRICULUM VITAE

### MD ZIA ULLAH

Lecturer  
School of Computing  
Edinburgh Napier University  
Merchiston Campus C38  
10 Colinton Road, EH10 5DT, Edinburgh, UK

ENU page: <https://md-zia-ullah>  
Homepage: <https://zuacubd.github.io>  
Email: [m.ullah@napier.ac.uk](mailto:m.ullah@napier.ac.uk)  
Cell: +44 (0)7748 751422

## RESEARCH INTERESTS

I am interested in theoretical and practical information retrieval (IR) and natural language processing (NLP) problems, as well as in applied machine learning (ML) or deep learning (DL) for large-scale predictive problems. My research areas are Information retrieval, Natural language processing, Graph mining, Applied machine learning, and Deep learning. My research has focused on adaptive information retrieval, query performance prediction, query understanding and diversification, check-worthiness prediction for fact-checking, Information extraction, Graph mining, and Social media analysis.

## EDUCATION

**2013/10 – 2016/12, Ph.D. in Computer Science and Engineering**  
[Toyohashi University of Technology \(TUT\)](#), Toyohashi, Aichi, Japan.

Advisor: [Professor Masaki Aono](#)

*Thesis: "Bipartite Graph-based Ranking Methods for Subtopic Mining and Genetic Disease Prediction"*

**2011/10 – 2013/09, M.Engg. in Computer Science and Engineering**  
[Toyohashi University of Technology](#), Toyohashi, Aichi, Japan.

Advisor: [Professor Masaki Aono](#)

**2005/05 – 2010/03, Bachelor of Science in Computer Science and Engineering**  
[University of Chittagong](#), Chittagong, Bangladesh.

## WORK EXPERIENCES

**2022/11 – Present, Lecturer**  
School of Computing and Engineering & the Built Environment  
Edinburgh Napier University, Edinburgh, UK

**2022/06 – 2022/10, Postdoctoral Researcher**  
[IRIT UMR5505](#), Université Toulouse II Jean Jaures (UT2), Toulouse, France.

Supervisor: [Professor Josiane Mothe](#) Responsibility:

- Research (Adaptive Information retrieval, Query performance prediction)
- Teaching (Data analytics and Information retrieval)

**2019/09 – 2021/12, Postdoctoral Researcher**  
[IRIT UMR5505](#), CNRS, Toulouse, France.

Supervisor: [Professor Josiane Mothe](#)

Responsibility:

- Research (IR, Indexing, Parameterized retrieval, Training data generation, Learning to rank, Evaluation, etc.)
- European project contribution (Keyphrase extraction, Exact-phrase-based scoring, Data integration, Deliverable)
- Teaching (Data analytics and Information retrieval)

**2017/04 – 2019/08, Postdoctoral Researcher**  
[IRIT UMR5505](#), Université Toulouse 3 Paul Sabatier (UT3), Toulouse, France.

Supervisor: [Professor Josiane Mothe](#) Responsibility:

- Research (Query performance prediction, Check-worthiness prediction, ANOVA analysis of IR parameters)
- Teaching (Data analytics and Information retrieval)

## TECHNICAL SKILLS

**Programming Languages:** Python, JAVA, R, Ruby, C/C++, PHP

**Search Engine Tools:** Elastic-search, Indri IR, Terrier IR

**Deep Learning Frameworks:** Keras, PyTorch

**Machine Learning library:** Scikit-learn, RankLib, SVM-rank

**Web Programming (back and front-end):** Python Flask, RESTful, RabbitMQ, JS, CSS

**DevOps:** Git, Docker, Singularity

## MENTORING

- Abu Nowshed Chy, Ph.D. Student, TUT, Japan, **2016/04 – 2019/03**
- Ismat Ara Reshma, M.Engg. Student, TUT, Japan, **2012/10 – 2014/09**
- Abu Nowshed Chy, M.Engg. Student, TUT, Japan, **2014/04 – 2016/03**
- Sun Yiwen, M.Engg. Student, TUT, Japan, **2016/10 – 2016/12**

## PUBLICATIONS (Selected)

### Patents

- 1 Josiane Mothe and **Md Zia Ullah**, Information Retrieval Device and Method using a Set of Search Configurations Pre-selected using Efficiency and Risk Functions, *European Patent*, 19305984.7, 2019. <https://register.epo.org/application?number=EP19305984&tab=main>

### Book Chapters

- 1 Josiane Mothe, Faneva Ramiandrisoa, and Md Zia Ullah, Comparison of machine learning models for -early-depression detection from users' posts, Springer, 2021 [In press]

### Journal Articles (Peer-Reviewed and Published)

- 1 Josiane Mothe, **Md Zia Ullah**, Guenter Okon, Thomas Schweer, Alfansos Juršenas, Justina Mandravickaite (2022), Instruments and Tools to Identify Radical Textual Content, ► *MDPI Information*, 28 pages, pp.1-28, Volume 13, Issue 4, doi: <https://doi.org/10.3390/info13040193>. [Google Scholar citations: 0]
- 2 Romain Deveaud, Josiane Mothe, **Md Zia Ullah**, Jian-Yun Nie (2019), Learning to Adaptively Rank Document Retrieval System Configurations, ► *ACM Transactions of Information Systems (ACM TOIS)*, 41 pages, pp.3:1-3:41, Volume 37, Issue 1, doi: <https://doi.org/10.1145/3231937>. [Google Scholar citations: 16]. **IF: 2.889**
- 3 Abu Nowshed Chy, **Md Zia Ullah**, and Masaki Aono (2018), Query Expansion for Microblog Retrieval Focusing on an Ensemble of Features, ► *Journal of Information Processing*, 16 pages, pp. 61-76, Volume 27, Issue 4, 2, doi: <https://doi.org/10.2197/ipsjjip.27.61>. [Google Scholar citations: 11]. **IF: 0.640**
- 4 **Md Zia Ullah** and Masaki Aono (2016), A Bipartite Graph-based Ranking Approach to Query Subtopics Diversification Focused on Word Embedding Features, ► *IEICE Transactions on Information and Systems (IEICE TOIS)*, 11 pages, pp. 3090-3100, Volume E99-D, Issue 12, doi: <https://doi.org/10.1587/transinf.2016EDP7190>. [Google Scholar citations: 2]. **IF: 0.449**
- 5 **Md Zia Ullah**, Masaki Aono, and Md Hanif Seddiqui (2015), Estimating a Ranked List of Human Genetic Diseases by Associating Phenotype-Gene with Gene-Disease Bipartite Graphs, ► *ACM Transactions on Intelligent System and Technology (ACM TIST)*, 21 pages, pp.56:1 56:21, Volume 6, Issue 4, doi: <https://doi.org/10.1145/2700487>. [Google Scholar citations: 5]. **IF: 2.672**

## International Conference Papers (Peer-Reviewed and Published)

- 1 Josiane Mothe and **Md Zia Ullah** (2021, November), Defining an Optimal Configuration Set for Selective Search Strategy – A Risk-Sensitive Approach, ► *Proceedings of the 30th ACM International Conference on Information and Knowledge Management (CIKM 2021)*, Virtual Event, QLD, Australia, doi: <https://doi.org/10.1145/3459637.3482422>. **Rank: A**
- 2 Sebastien Dejean, Radu Tudor Ionescu, Josiane Mothe, **Md Zia Ullah** (2020, March), Forward and Backward Feature Selection for Query Performance Prediction, ► *Proceedings of the 35th Annual ACM Symposium on Applied Computing (ACM SAC)*, pp. 690-697, Brno, Czech Republic. doi: <https://doi.org/10.1145/3341105.3373904> [Google Scholar citations: 7] **Rank: B**
- 3 Cédric Lespagnol, Josiane Mothe, **Md Zia Ullah** (2019, July), Information Nutritional Label and Word Embedding to Estimate Information Check-Worthiness, ► *Proceedings of the 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2019)*, pp. 941-944, Paris, France. doi: [https://doi.org/10.1007/978-3-030-28577-7\\_3](https://doi.org/10.1007/978-3-030-28577-7_3). [Google Scholar citations: 12] **Rank: A\***
- 4 Stefano Mizzaro, Josiane Mothe, Kevin Roitero, and **Md Zia Ullah** (2018, July), Query Performance Prediction and Effectiveness Evaluation Without Relevance Judgments: Two Sides of the Same Coin, ► *The 41st International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2018)*, pp. 1233-1236, Ann Arbor, MI, USA. doi: <https://doi.org/10.1145/3209978.3210146>. [Google Scholar citations: 10] **Rank: A\***
- 5 Adrian-Gabriel Chifu, Léa Laporte, Josiane Mothe, and **Md Zia Ullah** (2018, July), Query Performance Prediction Focused on Summarized Letor Features, ► *The 41st International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2018)*, pp. 1177-1180, Ann Arbor, MI, USA. doi: <https://doi.org/10.1145/3209978.3210121>. [Google Scholar citations: 17] **Rank: A\***
- 6 **Md Zia Ullah**, Abu Nowshed Chy, and Masaki Aono (2016, November), Query Subtopic Mining Exploiting Word Embedding for Search Result Diversification, ► *Twelfth Asia Information Retrieval Societies Conference (AIRS 2016)*, pp. 308-314, Beijing, China. doi: [https://doi.org/10.1007/978-3-319-48051-0\\_24](https://doi.org/10.1007/978-3-319-48051-0_24). [Google Scholar citations: 12] **Best Presentation Award Rank: C**
- 7 **Md Zia Ullah**, Masaki Aono, and Md Hanif Seddiqui (2013, July), Estimating a Ranked List of Human Hereditary Diseases for Clinical Phenotypes by Using Weighted Bipartite Networks, ► *35th IEEE International Conference on Engineering in Medicine and Biology Society (EMBS)*, pp. 3475-3478, Osaka, Japan. doi: [10.1109/EMBC.2013.6610290](https://doi.org/10.1109/EMBC.2013.6610290). [Google Scholar citations: 10] **Rank: C**
- 8 Ismat Ara Reshma, **Md Zia Ullah**, and Masaki Aono (2014, September), KDEVIR at ImageCLEF 2014 Scalable Concept Image Annotation Task: Ontology-based Automatic Image Annotation, ► *CLEF 2014 Evaluation Labs and Workshop, Online Working Notes (CEUR)*, CLEF 2014, 9 pages, Sheffield, UK. [Google Scholar citations: 7] **Ranked 1st position**

## SCHOLARSHIPS

- **Japanese Student Services Organization (JASSO) Scholarship** awarded from April 2016 – December 2016 for demonstrating excellent academic and personal records at University.
- **Amano Institute of Technology Scholarship** awarded from April 2015 – March 2016 for achieving excellent publications as a 2nd year Ph.D. student.
- **Japanese Student Services Organization (JASSO) Scholarship** awarded from April 2014 – March 2015 for demonstrating excellent academic and personal records at University.
- **Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT) Scholarship** awarded from October 2011 – September 2013 for achieving outstanding CGPA in undergraduate study.

## AWARDS

- **Best Presentation Award** at the 12th Asia Information Retrieval Societies Conference (AIRS 2016).
- **SIGIR Student Travel Grant** for the 12th Asia Information Retrieval Societies Conference (AIRS 2016).
- **Best Paper Award** at International Conference on Advanced Informatics: Concepts, Theory and Applications, ICAICTA 2015, Chomburi, Thailand, August 19-22th, 2015.

- **Best Paper Award** at International Conference on Advanced Informatics: Concepts, Theory and Applications, ICAICTA 2014, Bandung, Indonesia, August 20-21th, 2014.
- **Awarded in the ACM-ICPC Dhaka Site** Regional Programming Contest held at East-West University, December 8, Dhaka, Bangladesh, 2007. **Ranked 12th (over 83 teams)**

## INTERNATIONAL COLLABORATION

Co-authors	Affiliation	Country
Josiane Mothe (Pr)	Université de Toulouse	France
Masaki Aono (Pr)	Toyohashi University of Technology	Japan
Jian-Yun Nie (Pr)	University of Montreal	Canada
Debasis Ganguly (AP)	University of Glasgow	UK
Stefano Mizzaro (Pr)	University of Udine	Italie
Sebastien Dejean (Pr)	Université Toulouse III – Paul Sabatier	France
Radu Tudor Ionescu (Pr)	University of Bucharest	Romania
Adrian-Gabriel Chifu (AP)	Aix-Marseille Université	France
Abu Nowdhed Chy (AP)	University of Chittagong	Bangladesh
Kevin Roitero (Post-doc)	University of Udine	Italie

## RESEARCH GRANTS

- Hori Foundation Research Grant (\$ 5,000) for my project **Search Intent Mining** from 04/2014 – 09/2016.

## PROFESSIONAL ACTIVITIES

### Program Committee Members:

Conference	Rank	Year
<b>SIGIR</b>	A*	2023, 2022, 2021, 2020, 2019
<b>WSDM</b>	A*	2023, 2022, 2021
<b>KDD</b>	A*	2022, 2021
<b>CIKM</b>	A	2022, 2021, 2020
<b>ECIR</b>	A	2023, 2022, 2021, 2020, 2019
<b>CLEF</b>	-	2022, 2021, 2020, 2019, 2018, 2017

### Journal Reviewers:

- Information Retrieval Journal.
- Information Processing and Management.
- Open Computer Science Journal.

### Organizing Committee Chair:

- Joint Conference of the Information Retrieval Communities in Europe (CIRCLE 2020), Toulouse, France.

## PROFESSIONAL MEMBERSHIPS

- |   |                       |
|---|-----------------------|
| • ACM Special Interest Group on Information Retrieval (SIGIR) | <b>2018 – Present</b> |
| • ACM Special Interest Group on Applied Computing (SIGAPP)    | <b>2017 – 2018</b>    |
| • IEEE Engineering in Medicine and Biology Society (EMBS)     | <b>2012 – 2014</b>    |

## REFEREES

Available on request