Rui ZHAO

rui.zhao@ed.ac.uk

Education

(undertaking) Ph.D in Informatics, *AIAI*, *School of Informatics*, *the University of Edinburgh*, 2018 - present

MSc in Computer Science, *the University of Edinburgh*, 2017

B.E. in Software Engineering, *Northwest A&F University*, 2016

Research Focus

I work with Prof. Malcolm Atkinson, Dr. Petros Papapanagiotou and Dr. Jacques Fleuriot, on *Formally modelling data-governance rules to support automated compliance check in decentralized MIMO contexts*. My research incorporates formal modelling, logical reasoning, provenance, semantic technologies, etc to build the framework, addressing real-life needs of handling multi-staged cross-institution decentralized data processing and encoding rules containing obligations.

Publication

R. Zhao, M. Atkinson, P. Papapanagiotou, F. Magnoni, and J. Fleuriot, 'Dr.Aid: supporting data-governance rule compliance for decentralized collaboration in an automated way', to appear in *CSCW 2021*, Oct. 2021.

Other

R. Zhao, M. Atkinson, P. Papapanagiotou, J. Fleuriot, and C. Pagé, 'Computer-supported ethical rules for collaboratively sharing data', in *Ethics in Design, CSCW 2020*, Oct. 2020.

R. Zhao and M. Atkinson, 'Towards a Computer-Interpretable Actionable Formal Model to Encode Data Governance Rules', in *2019 15th International Conference on eScience (eScience)*, Sep. 2019, pp. 594–603, doi: 10.1109/eScience.2019.00082.

Academical Activity

03/2020 - 09/2020	**Research Assistant** at *School of Informatics*, *University of Edinburgh*
09/2018 - present	**Teaching Assistant** at *School of Informatics*, *University of Edinburgh*

Credit

01/2021	Associate Fellowship of *Higher Education Academy* (AFHEA)

Other Activity

09/2019 - present	**PhD Student Representative** of *AIAI* at *School of Informatics*, *University of Edinburgh*
12/2017 - present	**Author** of *Easer*, an open-source event-driven Android automation app, alternative to Tasker
09/2016 - 08/2017	**Class Representative** at *School of Informatics*, *University of Edinburgh*
05/2015 - 05/2016	**Student Assistant** at *Network & Education Technology Centre*, *Northwest A&F University*
05/2014 - 03/2016	**Leader** of *Linux User Group*, *Northwest A&F University*

Thesis

[MSc] *Making dispel4py dynamic*

Introduced runtime dynamic properties to dispel4py, a data-streaming workflow management system

- Allow dispel4py to dynamically scale to more nodes according to incoming data volume and computation required
- Introduce a mechanism to dynamically manipulate the workflow during runtime

[B.E.] *Design and implementation of a 3-d dynamic solar systems viewing system*

Designed and implemented a distributed 3D dynamic universe exploration system and its communication protocol

- Split calculation of planet locations to remote nodes in ad hoc mode with a RESTful protocol
- *Client/Viewer only handles user interaction and network traffic*

Other

11/2018   **Poster** at *DemoFest 2018* in *Edinburgh*

11/2017   **Poster** at *DemoFest 2017* in *Edinburgh*