

# Xin Du

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## WORK EXPERIENCE

<b>POSTDOC Research Associate, The University of Edinburgh, Edinburgh, UK</b>	<b>2021-2023</b>
<b>POSTDOC, Technische University Eindhoven, Eindhoven, Netherlands</b>	<b>2020-2021</b>
<b>PHD, Technische University Eindhoven, Eindhoven, Netherlands</b>	<b>2017-2020</b>

## ACADEMIC ACTIVITIES

- **(Senior) Program Committee Member**, ECML-PKDD 2020-2023, IJCAI 2021-2023, AAAI 2021-2023, UAI 2021-2023, AISTATS 2022-2023, IDA 2023, ICLR 2023.
- **Journal Reviewer**, International Journal of Artificial Intelligence in Education (IJAIED), Data Mining and Knowledge Discovery (DAMI).
- **Proceeding Chair**, ECML-PKDD 2019.
- **Volunteer**, International Symposium on Intelligent Data Analysis (IDA), 2018.
- **Volunteer**, The Annual Machine Learning Conference of The Benelux (Benelearn), 2017.

## EDUCATION

**Ph.D. Computer Science**, Eindhoven University of Technology, September 2020.

Thesis: "The Uncertainty in Exceptional Model Mining",

Advisor: Mykola Pechenizkiy & Wouter Duivesteijn,

<https://research.tue.nl/en/publications/the-uncertainty-in-exceptional-model-mining>

**M.A. Geographic Information System**, Wuhan University 2015.

**B.S. Geographic Information System**, Yunnan University 2010.

## Publications

[1] X. Du, B. Legastelois, B. Ganesh, A. Rajan, H. Chockler, V. Belle, S. Anderson, S. Ramamoorthy,

**Vision Checklist: Testable Error Analysis of Image Models to Help System**

**Designers Interrogate Model Capabilities.** Work-in-progress, 2022,

<https://arxiv.org/abs/2201.11674>

[2] X. Du, S. Ramamoorthy, W. Duivesteijn, J. Tian, M. Pechenizkiy,

**Beyond Discriminant Patterns: On the Robustness of Decision Rule Ensembles.** Work-in-

progress, 2021, <https://arxiv.org/abs/2109.10432>

[3] X. Du, Y. Pei, W. Duivesteijn, M. Pechenizkiy,

**Exceptional Spatio-Temporal Behavior Mining through Bayesian Non-Parametric Modeling.**

Data Mining and Knowledge Discovery (ECML-PKDD Journal Track), 2020, 34, 1267-1290,

<https://link.springer.com/article/10.1007/s10618-020-00674-z>

[4] X. Du, Y. Pei, W. Duivesteijn, M. Pechenizkiy,

**Fairness in Network Representation by Latent Structural Heterogeneity in Observational**

**Data.** AAAI Conference on Artificial Intelligence (AAAI), 2020, (Vol. 34, No. 04, pp. 3809-3816),

<https://ojs.aaai.org/index.php/AAAI/article/view/5792>

[5] X. Du, L. Sun, W. Duivesteijn, A. Nikolaev and M. Pechenizkiy,

**Adversarial Representation Learning for Causal Effect Inference with Observational**

**Data.** Data Mining and Knowledge Discovery, 2021, 35(4), 1713-1738,

<https://link.springer.com/article/10.1007/s10618-021-00759-3>

[6] X. Du, W. Duivesteijn, M. Klabbers, M. Pechenizkiy,

**ELBA: Exceptional Learning Behavior Analysis.**

Proceedings of the Eleventh International Conference on Educational Data Mining (EDM),

2018, <https://eric.ed.gov/?id=ED593224>

[7] Y. Pei, X. Du, J. Zhang, G. Fletcher, M. Pechenizkiy,

**struc2gauss: Structure Preserving Network Embedding via Gaussian Embedding.**

Data Mining and Knowledge Discovery, 2020,

<https://link.springer.com/article/10.1007/s10618-020-00684-x>

[8] Y. Wang, V. Menkovski, H. Wang, X. Du, M. Pechenizkiy,

**Causal Discovery from Incomplete Data: A Deep Learning Approach.** arxiv preprint, 2020,

<https://arxiv.org/abs/2001.05343>

[9] Anthony L. Corso, Sydney M. Katz, Craig Innes, Xin Du, Subramanian Ramamoorthy, Mykel J. Kochenderfer,

**Risk-Driven Design of Perception Systems.** The 36th Conference on Neural Information Processing Systems, 2022,

<https://www.research.ed.ac.uk/en/publications/risk-driven-design-of-perception-systems>