

# Amanda Aird

Department of Information Science  
University of Colorado Boulder

[amanda.aird@colorado.edu](mailto:amanda.aird@colorado.edu)  
<https://www.linkedin.com/in/amanda-aird/>

## Education

Ph.D., Information Science, University of Colorado Boulder, 2022 to 2027 (expc.)

Advisor: Robin Burke

M.S., Business Analytics, University of Iowa, 2021

Capstone: Engie Portfolio Analysis

B.A., Economics, University of Nevada - Las Vegas, 2020

Minor: Mathematics

## Academic Employment

### Research Assistantships

**That Recommender Systems Lab**

From 2022

*University of Colorado Boulder*

Developing a framework for improving multi-stakeholder fairness in recommender systems

**Professor Ann Campbell**

2020-2021

*University of Iowa*

Compiled winning application for INFORMS UPS George D. Smith prize

**Professor Kang Zhao**

2021

*University of Iowa*

Analyzed job reviews to discover trends in attitudes towards working from home pre- and post-COVID

### Teaching Assistantships

**Computational Reasoning**

Fall 2023, Fall 2024

Lect. Christopher Carruth, INFO:1201 at University of Colorado Boulder

**Business Computing Essentials**

Fall 2021

Lect. Yvonne Galusha, BAIS:1500 at University of Iowa

**Optimization and Simulation Modeling**

Spring 2021

Lect. Kamal Lamsal, BAIS:3800 at University of Iowa

## Research Interests

Artificial intelligence and machine learning, focused on fairness aware and multi-stakeholder approaches to recommender systems and evaluation

## Scholarship

### Peer-reviewed Publications

Aird, A., Štefancová, E., Buhayh, A., All, C., Homola, M., Mattei, N. Burke, R. Integrating Individual and Group Fairness for Recommender Systems through Social Choice. In Proceedings of the 19th ACM Conference on Recommender Systems: Full Paper. To Appear

Aird, A. Addressing Multi-stakeholder Fairness Concerns in Recommender Systems Through Social Choice. In Proceedings of the 19th ACM Conference on Recommender Systems: Extended Abstract. To Appear

Kaur, A., Aird, A., Borman, H., Nicastro, A., Leontjeva, A., Pizzato, L., & Jermyn, D. Synthetic Voices: Evaluating the Fidelity of LLM-Generated Personas in Representing People's Financial Wellbeing. 33rd ACM International Conference on User Modeling, Adaptation and Personalization. Full Paper. Available at <https://doi.org/10.1145/3699682.3728339>. **Best Paper Award**.

Aird, A., Štefancová, E., All, C., Volda, A., Homola, M., Mattei, N. Burke, R. Social Choice for Heterogeneous Fairness in Recommendation. In Proceedings of the 18th ACM Conference on Recommender Systems: Late-Breaking Results, 2024. pages 1096-1101. Available at <https://doi.org/10.1145/3640457.3691706>.

Varasteh, M., McKinnie, E., Aird, A., Acuña, D. Burke, R. Comparative Explanations for Recommendation: Research Directions. In IntRS 2024: 11th Joint Workshop on Interfaces and Human Decision Making for Recommender Systems, 2024. 13 pages. <https://ceur-ws.org/Vol-3815/paper1.pdf>.

Aird, A., Farastu, P., Sun, J., Štefancová, E., All, C., Volda, A., Mattei, N. & Burke, R. Dynamic Fairness-aware Recommendation Through Multi-agent Social Choice. ACM Transactions on Recommender Systems. 32 pages. Available at <https://doi.org/10.1145/3690653>. **Women in RecSys Journal Article of the Year Award Recipient**

Aird, A., All, C., Farastu, P., Štefancová, E., Sun, J., Mattei, N. & Burke, R. Exploring Social Choice Mechanisms for Recommendation Fairness in SCRUF. In FAccTRec Workshop on Responsible Recommendation, held at RecSys 2023. September 2023. 13 pages. Available as arXiv preprint arXiv:2309.08621.

Aird, A., Farastu, P., Sun, J., Volda, A., Mattei, N. & Burke, R. Dynamic Fairness-Aware Recommendation through Multi-Agent Social Choice. In 9th International Workshop on Computational Social Choice (COMSOC-2023). Paper 91. 26 pages. Available at <https://comsoc-community.org/archive/comsoc-2023/comsoc/papers/paper91.pdf>.

Kadekodi, S., Aird, A., Ward, T., & Burke, R. Can separate optimization be equal? Joint vs multi-stage optimization in recommender systems fairness. In KDD 2022 Undergraduate Consortium, 6 pages. 2022.

### Presentations

"Who Pays? Personalization, Bossiness, and the Cost of Fairness". Presentation at FAccTRec Workshop on Responsible Recommendation, held at RecSys 2022, Seattle, WA.

### Other Research Products

Sonboli, N., Aird, A., & Burke, R. D. (2022). Microlending 2017 Data Set [Data set]. University of Colorado Boulder. <https://doi.org/10.25810/PGJK-RR19>

## Distinctions

Boe Research Fellowship, University of Iowa, 2021

Magna Cum Laude, University of Nevada - Las Vegas, 2020

Lee Scholar, University of Nevada - Las Vegas, 2019

Professional Experience

<b>Commonwealth Bank of Australia</b> , Sydney, Australia	2024
Associate Data Scientist	
<b>OneMain Financial</b> , Nevada, USA	2019-2020
Personal Loan Specialist	

Service

<b>CU Boulder, Information Science Graduate Student Association</b>	Colorado
Procurement Officer	2024-2025
<b>UNLV, Risk and Insurance Management Association</b>	Nevada
Treasurer	2019-2020
<b>UNLV, International Business Association</b>	Nevada
VP of Fundraising	2018-2020