Julian Skirzyński

Curriculum Vitae — March 202

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EDUCATION

University of California, San Diego

2022 - Present

Ph.D. Candidate in Computer Science & Engineering Thesis: Designing AI for Better Decision-Making

Advisor: Berk Ustun

McGill University

2017-2020

M.S. in Computer Science

Thesis: Language-Conditional Imitation Learning

Advisor: David Meger

University of Warsaw

2012 - 2018

M.S. in Cognitive Science

B.S. in Mathematics, Cognitive Science Advisors: Andrzej Skowron; Piotr Wasilewski

ACADEMIC

Max Planck Institute for Intelligent Systems, Germany

2019-2023

Positions Research Scientist

Projects: Interpretable RL Policies, Improving Human Planning, Discovering Human Planning Strategies

Advisor: Falk Lieder

Research

Areas: Machine Learning, Cognitive Science, Human-Computer Interaction

Interests Topics: Decision-Making, Interpretability, Explainability, Reinforcement Learning, Experimental Design

Applications: Social Sciences, Medicine, Consumer Finance, Criminal Justice

Awards & Honors

Pierre Arbour Foundation Scholarship McGill University Graduate Excellence Award McGill - University of Warsaw Exchange Scholarship University of Warsaw Academic Excellence Scholarship

2018 - 2019 2018

2015

2014-2017

PREPRINTS

On the Value of Interpretability in Human Decision-Making

Julian Skirzyński, Elena Glassman, Berk Ustun

In Submission, 2025

2. Discrimination Exposed? On the Reliability of Explanations for Discrimination Detection

Julian Skirzyński, Davind Danks, Berk Ustun

In Submission, 2025

PAPERS

3. <u>Automatic Discovery and Description of Human Planning Strategies</u>

*EQUAL CONTRIBUTION Julian Skirzyński, Yash Raj Jain, Falk Lieder

Behavior Research Methods, 2023



. Boosting Human Decision-making with AI-Generated Decision Aids

Frederic Becker*, Julian Skirzyński*, Bas van Opheusden, Falk Lieder

Computational Brain & Behavior, 2022

5. Automatic Discovery of Interpretable Planning Strategies

Julian Skirzyński, Frederic Becker, Falk Lieder

Machine Learning, 2021

6. Object [Re] Cognition with Similarity

Łukasz Sosnowski, Julian Skirzyński

International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, 2018

7. A Framework for Analysis of Granular Neural Networks

Julian Skirzyński

International Joint Conference on Rough Sets, 2017

REFEREED 8. PAPERS

8. On Interpretability and Overreliance

Julian Skirzyński, Elena Glassman, Berk Ustun

Interpretable AI: Past, Present and Future, NeurIPS Workshop, 2024

9. <u>Language-Conditional Imitation Learning</u>

Julian Skirzyński, Bobak Baghi, David Meger

Visually Grounded Interaction and Language, NAACL Workshop, 2021

TEACHING

UCSD Halıcıoğlu Data Science Institute

2023

DSC291 - Interpretability & Explainability in Machine Learning

Guest Lecturer & Teaching Assistant

Co-designed curriculum and held weekly office hours for serving 20+ PhD/MS students. Delivered guest lectures on ML interpretability methods and cognitive biases in AI-assisted decision-making. Completed teaching development workshop on graduate-level instruction.

SOFTWARE GitHub

<u>Strategy Extraction from RL Policies</u> – Algorithm to extract interpretable decision trees from RL policies <u>Human Planning Strategy Analysis</u> – Framework for identifying strategies used in human planning tasks

SELECTED

Educational Entertainment One, Warsaw, Poland

202I - 2024

Industry Lead Technical Architect

Positions

Designed algorithms (AI, NLP) and supported the production process for a story-driven mobile game for learning English.

Academic Service

Journal Reviewing

E Machine Learning

2022

Conference Program Committee

NeurIPS – Conference on Neural Information Processing Systems

ICML – International Conference on Machine Learning

ICLR – International Conference on Learning Representations

FAccT – ACM Conference on Fairness, Accountability and Transparency

ICML Workshop RL4RealLife – International Conference on Machine Learning

1022 – Present ICML Workshop RL4RealLife – International Conference on Machine Learning

1021 IPMU – Information Processing and Management of Uncertainty in Knowledge-Based Systems

PERSONAL

Language Skills: English, Polish, German (Conversational)

Software Skills: Python, R, C++, Flask, AWS, PyTorch, CPLEX, JavaScript, Jira Interests: Soccer, Groundhopping, Traveling, Fantasy Literature, Record Collecting

Other: Peer tutoring, Co-author of "Triozy polskie", a textbook for learning Polish by foreigners