# Julian Skirzyński

Curriculum Vitae — May 202

jskirzynski@ucsd.edu www.jskirzynski.com

### 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

How Much Content Do LLMs Generate That Induces Cognitive Bias in Users?

Abeer Alessa, Akshaya Lakshminarasimhan, Param Somane, **Julian Skirzyński**, Julian McAuley, Jessica Echterhoff *In Submission*, 2025

2. On the Value of Interpretability in Human Decision-Making

Julian Skirzyński, Elena Glassman, Berk Ustun

In Submission, 2025

#### **PAPERS**

. <u>Discrimination Exposed? On the Reliability of Explanations for Discrimination Detection</u>

\*EQUAL CONTRIBUTION Julian Skirzyński, David Danks, Berk Ustun

ACM Conference on Fairness, Accountability, and Transparency, 2025



Automatic Discovery and Description of Human Planning Strategies

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

Behavior Research Methods, 2023

4. 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 Workshop 8.

PAPERS

### 8. On Interpretability and Overreliance

Julian Skirzyński, Elena Glassman, Berk Ustun

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

### 9. Language-Conditional Imitation Learning

Julian Skirzyński, Bobak Baghi, David Meger

Visually Grounded Interaction and Language, NAACL Workshop, 2021

#### TEACHING

### UCSD Halicioğlu 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.

Strategy Extraction from RL Policies – Algorithm to extract interpretable decision trees from RL policies

## Software

• GitHub Human Planning Strategy Analysis – Framework for identifying strategies used in human planning tasks

2021 - 2024

### Selected Educational Entertainment One, Warsaw, Poland

Industry Lead Technical Architect

### Positions 1

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

### Academic

Journal Reviewing

## Service

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

2021 – PRESENT

2022 – PRESENT

2021 – 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