# Julian Skirzyński

Curriculum Vitae — March 2024

(858) 222-9243 jskirzynski@ucsd.edu

#### EDUCATION

### University of California, San Diego, San Diego, CA

2022 - Present

PhD in Computer Science & Engineering

Advisor: Berk Ustun

Research Interests: Interpretable AI, Computational Cognitive Science, Decision-Making, Reinforcement

Learning, Machine Learning

# McGill University, Montreal, QC

2017-2020

M.Sc. in Computer Science

Thesis: Language-Conditional Imitation Learning

Advisor: David Meger

## University of Warsaw, Warsaw, Poland

2012 - 2018

M.Sc. in Cognitive Science

B.Sc. in Cognitive Science, Mathematics

Advisors: Andrzej Skowron (Mathematics); Piotr Wasilewski (Cognitive Science)

### Awards & Honors

# Pierre Arbour Foundation Scholarship, McGill University

2018-2019

Graduate Excellence Award, McGill University

2018

Scholarship for Exchange at McGill University, University of Warsaw Best Students Scholarship, University of Warsaw

2015 2014-2017

# Research &

### Educational Entertainment One, Warsaw, Poland

2021 - 2024

Industry

Lead Technical Architect

Design algorithms and support the production process for a story-driven mobile game for learning English.

#### Max Planck Institute for Intelligent Systems, Tübingen, Germany

2019-2023

Researcher

Led project on discovering human-interpretable descriptions of reinforcement learning policies that are suitable for teaching people optimal strategies for solving problems.

#### PAPERS

#### [1] Automatic Discovery and Description of Human Planning Strategies

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Julian Skirzyński, Yash Raj Jain, Falk Lieder

Behavior Research Methods, 2023

# **G** Google Scholar

[2] Boosting Human Decision-making with AI-Generated Decision Aids

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

Computational Brain & Behavior, 2022

[3] Automatic Discovery of Interpretable Planning Strategies

Julian Skirzyński, Frederic Becker, Falk Lieder

Machine Learning, 2021

[4] Object [Re] Cognition with Similarity

Łukasz Sosnowski, Julian Skirzyński

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

[5] A Framework for Analysis of Granular Neural Networks

Julian Skirzyński

International Joint Conference on Rough Sets, 2017

**PAPERS** 

Workshop [4] <u>Language-Conditional Imitation Learning</u>

#### Julian Skirzyński, Bobak Baghi, David Meger

Visually Grounded Interaction and Language, NAACL Workshop, 2021

#### Posters

- [5] Encouraging far-sightedness with automatically generated descriptions of optimal planning strategies
  Frederic Becker, Julian Skirzyński, Bas van Opheusden, Falk Lieder
  Proceedings of the Annual Meeting of the Cognitive Science Society, 2021
- [6] Flexible Strategy Use in Soar's Tic-Tac-Toe

Julian Skirzyński, Piotr Wasilewski

Proceedings of the Annual Meeting of the Cognitive Science Society, 2020

[7] Flexible Strategy Use in ACT-R's Tic-Tac-Toe

Julian Skirzyński, Piotr Wasilewski

Proceedings of the Annual Meeting of the Cognitive Science Society, 2019

#### Academic Service

Journal Reviewing

Machine Learning

Conference Program Committee

NeurIps- Annual Conference on Neural Information Processing Systems

FAccT - ACM Conference on Fairness, Accountability and Transparency

ICML Workshop RL4RealLife - International Conference on Machine Learning

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

2023

2022,2023

# SOFTWARE GitHub

<u>InterpretableStrategyDiscovery</u> – find decision trees describing RL policies <u>InterpretableHumanPlanning</u> – find strategies used by people in planning

#### Personal

Language Skills: Fluent in Polish, English, Intermediate in German

Software Skills: C++, Python, R, Lisp, Java, Pytorch, Jira

Interests: Music collecting, Soccer, Groundhopping, Travel, Cultures of the world, Fantasy Other: Peer tutoring, Co-author of "Triozy polskie", a textbook for learning Polish by foreigners