# Julian Skirzyński

CURRICULUM VITAE — MAY 2022

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#### 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 Scholarship for Exchange at McGill University, University of Warsaw 2018 2015

Best Students Scholarship, University of Warsaw

2014-2017

## Research &

### Educational Entertainment One, Warsaw, Poland

202 I - PRESENT

Industry AI Designer and Production Manager

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-PRESENT

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 of interpretable planning strategies



Julian Skirzyński, Frederic Becker, Falk Lieder

Machine Learning, 2021

[2] Object [Re] Cognition with Similarity

Łukasz Sosnowski, Julian Skirzyński

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

[3] A Framework for Analysis of Granular Neural Networks

Julian Skirzyński

International Joint Conference on Rough Sets, 2017

## Refereed

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

**PAPERS** 

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

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 PREPRINTS Boosting human decision-making with AI-generated decision aids Frederic Becker\*, Julian Skirzyński\*, Bas van Opheusden, Falk Lieder \*JOINT FIRST AUTHORSHIP Manuscript in submission, 2022 [9] Automatic discovery and description of human planning strategies Julian Skirzyński, Yash Raj Jain, Falk Lieder Manuscript in submission, 2022 Academic JOURNAL REVIEWING SERVICE Machine Learning Conference Program Committee FAccT – ACM Conference on Fairness, Accountability and Transparency 2022 ICML Workshop RL<sub>4</sub>RealLife – International Conference on Machine Learning 202 I IPMU - Information Processing and Management of Uncertainty in Knowledge-Based Systems 2018 Software InterpretableStrategyDiscovery - find decision trees describing RL policies GitHub InterpretableHumanPlanning – 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

[6] Flexible Strategy Use in Soar's Tic-Tac-Toe