Julian Skirzyński

Curriculum Vitae — October 2024

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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 — 2018
Scholarship for Exchange at McGill University, University of Warsaw — 2015
Best Students Scholarship, University of Warsaw — 2014 – 2017

Research & Industry

Grantino, Warsaw, Poland — 2024 – Present
Grant Writing Contractor
Grant writing on IT-related R&D projects funded by the European Union (NCBiR, PARP) for selected partners

Educational Entertainment One, Warsaw, Poland — 2021 – 2024
Lead Technical Architect
Designed algorithms (AI, NLP) and supported 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

*Joint first authorship

Google Scholar

[1] Automatic Discovery and Description of Human Planning Strategies
Julian Skirzyński, Yash Raj Jain, Falk Lieder
Behavior Research Methods, 2023

[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

Refereed Workshop Papers

[6] Language-Conditional Imitation Learning
Julian Skirzyński, Bobak Baghi, David Meger
Visually Grounded Interaction and Language, NAACL Workshop, 2021

Posters

[7] 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

[8] Flexible Strategy Use in Soar's Tic-Tac-Toe
Julian Skirzyński, Piotr Wasilewski
Proceedings of the Annual Meeting of the Cognitive Science Society, 2020

[9] 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

Teaching

DSC291 – Interpretability & Explainability in Machine Learning — FA23
Teaching Assistant: Co-designed class curriculum and contributed to instruction periodically

Academic Service

Journal Reviewing

Machine Learning — 2022

Conference Program Committee

NeurIps – Annual Conference on Neural Information Processing Systems — 2023 – 2024
ICLR – International Conference on Learning Representations — 2024
FAccT – ACM Conference on Fairness, Accountability and Transparency — 2022 – 2023
ICML Workshop RL4RealLife – International Conference on Machine Learning — 2021
IPMU – Information Processing and Management of Uncertainty in Knowledge-Based Systems — 2018

Software

GitHub
InterpretableStrategyDiscovery – find decision trees describing RL policies
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