DANIEL BEECHEY

Email: djeb20@bath.ac.uk ◇ Publications: Google Scholar
Department of Computer Science, Univserity of Bath ◇ United Kingdom
Website: people.bath.ac.uk/djeb20/

Research Interests Reinforcement Learning, Explainable Artificial Intelligence
Hierarchical Reinforcement Learning
Bounded Rationality, Lifelong Learning

EDUCATION

Ph.D in Computer Science *2021 - Present*
Univsersity of Bath, Bath, United Kingdom.
Advisors: Özgür Şimşek (Computer Science), Emma Carmel (Social Policy)
Thesis: How to Explain Reinforcement Learning with Shapley Values

M.Res in Accountable, Responsible and Transparent AI *2021 - 2022*
Univsersity of Bath, Bath, United Kingdom.
Advisors: Özgür Şimşek (Computer Science), Emma Carmel (Social Policy)
Thesis: Explaining Reinforcement Learning with Shapley Values
Overall Mark: 81 (Distinction)

M.Sc in Data Science *2020 - 2021*
Univsersity of Bath, Bath, United Kingdom.
Advisor: Özgür Şimşek
Thesis: Autonomous Routing of Printed Circuit Boards using Hierarchical Reinforcement Learning
Overall Mark: 83 (Distinction)

B.Sc in Mathematics *2017 - 2020*
Univsersity of Bath, Bath, United Kingdom.
Overall Mark: 78 (1st Class)

PUBLICATIONS

Daniel Beechey, Thomas M. S. Smith and Özgür Şimşek
Explaining Reinforcement Learning with Shapley Values
ICML 2023

Toby Lewis-Atwell, **Daniel Beechey**, Özgür Şimşek and Matthew N. Grayson
Reformulating Reactivity Design for Data-Efficient Machine Learning
ACS Catalysis, 13(20), 2023

TEACHING EXPERIENCE

M.Sc Reinforcement Learning, Lecturer *2023*
Co-Lecturer with Joshua Evans and Thomas Smith.
University of Bath

M.Sc Reinforcement Learning (Online), Lecturer *2023*
Co-Lecturer with Jessica Nicholson.
University of Bath

M.Sc Dissertation Project, Supervisor *2023*
Lead Supervisor, 2 Students.
University of Bath

M.Sc Dissertation Project (Online), Supervisor *2022 - 2023*
Co-Supervisor with Joshua Evans, 3 Students.
University of Bath

B.Sc Dissertation Project, Supervisor *2022 - 2023*
Lead Supervisor, 2 Students.
University of Bath

M.Sc Reinforcement Learning, Teaching Assistant *2022 - 2023*
University of Bath

M.Sc Dissertation Project, Supervisor *2022*
Co-Supervisor with Paola Bruscoli and Thomas Cannon, 10 Students.
University of Bath

M.Sc Software Technologies for Data Science, Teaching Assistant *2022*
University of Bath

M.Sc Statistics for Data Science, Teaching Assistant *2022*
University of Bath

B.Sc Programming, Foundations and Connections, Teaching Assistant *2022*
University of Bath

B.Sc Mathematical Methods and Applications, Teaching Assistant *2021*
University of Bath

B.Sc Programming and Discrete Mathematics, Teaching Assistant *2021*
University of Bath

TALKS

Explaining Reinforcement Learning with Shapley Values
Bath Conference of Computer Science *2023*
Turing Institute Student Presentations *2023*

AWARDS

Bath Conference of Computer Science, **Best Overall Contribution** *2023*
Inter-AI CDT Conference, **Best Poster** *2023*