



Universiteit
Leiden
The Netherlands

Enhancing autonomy and efficiency in goal-conditioned reinforcement learning

Yang, Z.

Citation

Yang, Z. (2025, February 26). *Enhancing autonomy and efficiency in goal-conditioned reinforcement learning*. SIKS Dissertation Series. Retrieved from <https://hdl.handle.net/1887/4196074>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/4196074>

Note: To cite this publication please use the final published version (if applicable).

Titles in the SIKS dissertation series since 2016

- 2016 01 Syed Saiden Abbas (RUN), Recognition of Shapes by Humans and Machines
- 02 Michiel Christiaan Meulendijk (UU), Optimizing medication reviews through decision support: prescribing a better pill to swallow
- 03 Maya Sappelli (RUN), Knowledge Work in Context: User Centered Knowledge Worker Support
- 04 Laurens Rietveld (VUA), Publishing and Consuming Linked Data
- 05 Evgeny Sherkhonov (UvA), Expanded Acyclic Queries: Containment and an Application in Explaining Missing Answers
- 06 Michel Wilson (TUD), Robust scheduling in an uncertain environment
- 07 Jeroen de Man (VUA), Measuring and modeling negative emotions for virtual training
- 08 Matje van de Camp (TiU), A Link to the Past: Constructing Historical Social Networks from Unstructured Data
- 09 Archana Nottamkandath (VUA), Trusting Crowdsourced Information on Cultural Artefacts
- 10 George Karafotias (VUA), Parameter Control for Evolutionary Algorithms
- 11 Anne Schuth (UvA), Search Engines that Learn from Their Users
- 12 Max Knobbout (UU), Logics for Modelling and Verifying Normative Multi-Agent Systems
- 13 Nana Baah Gyan (VUA), The Web, Speech Technologies and Rural Development in West Africa - An ICT4D Approach
- 14 Ravi Khadka (UU), Revisiting Legacy Software System Modernization

Titles in the SIKS dissertation series since 2016

- 15 Steffen Michels (RUN), Hybrid Probabilistic Logics - Theoretical Aspects, Algorithms and Experiments
- 16 Guangliang Li (UvA), Socially Intelligent Autonomous Agents that Learn from Human Reward
- 17 Berend Weel (VUA), Towards Embodied Evolution of Robot Organisms
- 18 Albert Meroño Peñuela (VUA), Refining Statistical Data on the Web
- 19 Julia Efremova (TU/e), Mining Social Structures from Genealogical Data
- 20 Daan Odijk (UvA), Context & Semantics in News & Web Search
- 21 Alejandro Moreno Céleri (UT), From Traditional to Interactive Playspaces: Automatic Analysis of Player Behavior in the Interactive Tag Playground
- 22 Grace Lewis (VUA), Software Architecture Strategies for Cyber-Foraging Systems
- 23 Fei Cai (UvA), Query Auto Completion in Information Retrieval
- 24 Brend Wanders (UT), Repurposing and Probabilistic Integration of Data; An Iterative and data model independent approach
- 25 Julia Kiseleva (TU/e), Using Contextual Information to Understand Searching and Browsing Behavior
- 26 Dilhan Thilakarathne (VUA), In or Out of Control: Exploring Computational Models to Study the Role of Human Awareness and Control in Behavioural Choices, with Applications in Aviation and Energy Management Domains
- 27 Wen Li (TUD), Understanding Geo-spatial Information on Social Media
- 28 Mingxin Zhang (TUD), Large-scale Agent-based Social Simulation - A study on epidemic prediction and control
- 29 Nicolas Höning (TUD), Peak reduction in decentralised electricity systems - Markets and prices for flexible planning
- 30 Ruud Mattheij (TiU), The Eyes Have It
- 31 Mohammad Khelghati (UT), Deep web content monitoring
- 32 Eelco Vriezekolk (UT), Assessing Telecommunication Service Availability Risks for Crisis Organisations
- 33 Peter Bloem (UvA), Single Sample Statistics, exercises in learning from just one example
- 34 Dennis Schunselaar (TU/e), Configurable Process Trees: Elicitation, Analysis, and Enactment
- 35 Zhaochun Ren (UvA), Monitoring Social Media: Summarization, Classification and Recommendation

Titles in the SIKS dissertation series since 2016

- 36 Daphne Karreman (UT), Beyond R2D2: The design of nonverbal interaction behavior optimized for robot-specific morphologies
 - 37 Giovanni Sileno (UvA), Aligning Law and Action - a conceptual and computational inquiry
 - 38 Andrea Minuto (UT), Materials that Matter - Smart Materials meet Art & Interaction Design
 - 39 Merijn Bruijnes (UT), Believable Suspect Agents; Response and Interpersonal Style Selection for an Artificial Suspect
 - 40 Christian Detweiler (TUD), Accounting for Values in Design
 - 41 Thomas King (TUD), Governing Governance: A Formal Framework for Analysing Institutional Design and Enactment Governance
 - 42 Spyros Martzoukos (UvA), Combinatorial and Compositional Aspects of Bilingual Aligned Corpora
 - 43 Saskia Koldijk (RUN), Context-Aware Support for Stress Self-Management: From Theory to Practice
 - 44 Thibault Sellam (UvA), Automatic Assistants for Database Exploration
 - 45 Bram van de Laar (UT), Experiencing Brain-Computer Interface Control
 - 46 Jorge Gallego Perez (UT), Robots to Make you Happy
 - 47 Christina Weber (UL), Real-time foresight - Preparedness for dynamic innovation networks
 - 48 Tanja Buttler (TUD), Collecting Lessons Learned
 - 49 Gleb Polevoy (TUD), Participation and Interaction in Projects. A Game-Theoretic Analysis
 - 50 Yan Wang (TiU), The Bridge of Dreams: Towards a Method for Operational Performance Alignment in IT-enabled Service Supply Chains
-
- 2017 01 Jan-Jaap Oerlemans (UL), Investigating Cybercrime
 - 02 Sjoerd Timmer (UU), Designing and Understanding Forensic Bayesian Networks using Argumentation
 - 03 Daniël Harold Telgen (UU), Grid Manufacturing; A Cyber-Physical Approach with Autonomous Products and Reconfigurable Manufacturing Machines
 - 04 Mrunal Gawade (CWI), Multi-core Parallelism in a Column-store
 - 05 Mahdieh Shadi (UvA), Collaboration Behavior
 - 06 Damir Vandic (EUR), Intelligent Information Systems for Web Product Search
 - 07 Roel Bertens (UU), Insight in Information: from Abstract to Anomaly

Titles in the SIKS dissertation series since 2016

- 08 Rob Konijn (VUA), Detecting Interesting Differences: Data Mining in Health Insurance Data using Outlier Detection and Subgroup Discovery
- 09 Dong Nguyen (UT), Text as Social and Cultural Data: A Computational Perspective on Variation in Text
- 10 Robby van Delden (UT), (Steering) Interactive Play Behavior
- 11 Florian Kunneman (RUN), Modelling patterns of time and emotion in Twitter #anticipointment
- 12 Sander Leemans (TU/e), Robust Process Mining with Guarantees
- 13 Gijs Huisman (UT), Social Touch Technology - Extending the reach of social touch through haptic technology
- 14 Shoshannah Tekofsky (TiU), You Are Who You Play You Are: Modelling Player Traits from Video Game Behavior
- 15 Peter Berck (RUN), Memory-Based Text Correction
- 16 Aleksandr Chuklin (UvA), Understanding and Modeling Users of Modern Search Engines
- 17 Daniel Dimov (UL), Crowdsourced Online Dispute Resolution
- 18 Ridho Reinanda (UvA), Entity Associations for Search
- 19 Jeroen Vuurens (UT), Proximity of Terms, Texts and Semantic Vectors in Information Retrieval
- 20 Mohammadbashir Sedighi (TUD), Fostering Engagement in Knowledge Sharing: The Role of Perceived Benefits, Costs and Visibility
- 21 Jeroen Linssen (UT), Meta Matters in Interactive Storytelling and Serious Gaming (A Play on Worlds)
- 22 Sara Magliacane (VUA), Logics for causal inference under uncertainty
- 23 David Graus (UvA), Entities of Interest — Discovery in Digital Traces
- 24 Chang Wang (TUD), Use of Affordances for Efficient Robot Learning
- 25 Veruska Zamborlini (VUA), Knowledge Representation for Clinical Guidelines, with applications to Multimorbidity Analysis and Literature Search
- 26 Merel Jung (UT), Socially intelligent robots that understand and respond to human touch
- 27 Michiel Joosse (UT), Investigating Positioning and Gaze Behaviors of Social Robots: People's Preferences, Perceptions and Behaviors
- 28 John Klein (VUA), Architecture Practices for Complex Contexts
- 29 Adel Alhuraibi (TiU), From IT-Business Strategic Alignment to Performance: A Moderated Mediation Model of Social Innovation, and Enterprise Governance of IT"

Titles in the SIKS dissertation series since 2016

- 30 Wilma Latuny (TiU), The Power of Facial Expressions
 - 31 Ben Ruijl (UL), Advances in computational methods for QFT calculations
 - 32 Thaer Samar (RUN), Access to and Retrieval of Content in Web Archives
 - 33 Brigit van Loggem (OU), Towards a Design Rationale for Software Documentation: A Model of Computer-Mediated Activity
 - 34 Maren Scheffel (OU), The Evaluation Framework for Learning Analytics
 - 35 Martine de Vos (VUA), Interpreting natural science spreadsheets
 - 36 Yuanhao Guo (UL), Shape Analysis for Phenotype Characterisation from High-throughput Imaging
 - 37 Alejandro Montes Garcia (TU/e), WiBAF: A Within Browser Adaptation Framework that Enables Control over Privacy
 - 38 Alex Kayal (TUD), Normative Social Applications
 - 39 Sara Ahmadi (RUN), Exploiting properties of the human auditory system and compressive sensing methods to increase noise robustness in ASR
 - 40 Altaf Hussain Abro (VUA), Steer your Mind: Computational Exploration of Human Control in Relation to Emotions, Desires and Social Support For applications in human-aware support systems
 - 41 Adnan Manzoor (VUA), Minding a Healthy Lifestyle: An Exploration of Mental Processes and a Smart Environment to Provide Support for a Healthy Lifestyle
 - 42 Elena Sokolova (RUN), Causal discovery from mixed and missing data with applications on ADHD datasets
 - 43 Maaïke de Boer (RUN), Semantic Mapping in Video Retrieval
 - 44 Garm Lucassen (UU), Understanding User Stories - Computational Linguistics in Agile Requirements Engineering
 - 45 Bas Testerink (UU), Decentralized Runtime Norm Enforcement
 - 46 Jan Schneider (OU), Sensor-based Learning Support
 - 47 Jie Yang (TUD), Crowd Knowledge Creation Acceleration
 - 48 Angel Suarez (OU), Collaborative inquiry-based learning
-
- 2018 01 Han van der Aa (VUA), Comparing and Aligning Process Representations
 - 02 Felix Mannhardt (TU/e), Multi-perspective Process Mining
 - 03 Steven Bosems (UT), Causal Models For Well-Being: Knowledge Modeling, Model-Driven Development of Context-Aware Applications, and Behavior Prediction

Titles in the SIKS dissertation series since 2016

- 04 Jordan Janeiro (TUD), Flexible Coordination Support for Diagnosis Teams in Data-Centric Engineering Tasks
- 05 Hugo Huurdeman (UvA), Supporting the Complex Dynamics of the Information Seeking Process
- 06 Dan Ionita (UT), Model-Driven Information Security Risk Assessment of Socio-Technical Systems
- 07 Jieting Luo (UU), A formal account of opportunism in multi-agent systems
- 08 Rick Smetsers (RUN), Advances in Model Learning for Software Systems
- 09 Xu Xie (TUD), Data Assimilation in Discrete Event Simulations
- 10 Julienka Mollee (VUA), Moving forward: supporting physical activity behavior change through intelligent technology
- 11 Mahdi Sargolzaei (UvA), Enabling Framework for Service-oriented Collaborative Networks
- 12 Xixi Lu (TU/e), Using behavioral context in process mining
- 13 Seyed Amin Tabatabaei (VUA), Computing a Sustainable Future
- 14 Bart Joosten (TiU), Detecting Social Signals with Spatiotemporal Gabor Filters
- 15 Naser Davarzani (UM), Biomarker discovery in heart failure
- 16 Jaebok Kim (UT), Automatic recognition of engagement and emotion in a group of children
- 17 Jianpeng Zhang (TU/e), On Graph Sample Clustering
- 18 Henriette Nakad (UL), De Notaris en Private Rechtspraak
- 19 Minh Duc Pham (VUA), Emergent relational schemas for RDF
- 20 Manxia Liu (RUN), Time and Bayesian Networks
- 21 Aad Slootmaker (OU), EMERGO: a generic platform for authoring and playing scenario-based serious games
- 22 Eric Fernandes de Mello Araújo (VUA), Contagious: Modeling the Spread of Behaviours, Perceptions and Emotions in Social Networks
- 23 Kim Schouten (EUR), Semantics-driven Aspect-Based Sentiment Analysis
- 24 Jered Vroon (UT), Responsive Social Positioning Behaviour for Semi-Autonomous Telepresence Robots
- 25 Riste Gligorov (VUA), Serious Games in Audio-Visual Collections
- 26 Roelof Anne Jelle de Vries (UT), Theory-Based and Tailor-Made: Motivational Messages for Behavior Change Technology
- 27 Maikel Leemans (TU/e), Hierarchical Process Mining for Scalable Software Analysis

Titles in the SIKS dissertation series since 2016

- 28 Christian Willemse (UT), Social Touch Technologies: How they feel and how they make you feel
 - 29 Yu Gu (TiU), Emotion Recognition from Mandarin Speech
 - 30 Wouter Beek (VUA), The "K" in "semantic web" stands for "knowledge": scaling semantics to the web
-
- 2019 01 Rob van Eijk (UL), Web privacy measurement in real-time bidding systems. A graph-based approach to RTB system classification
 - 02 Emmanuelle Beauxis Aussalet (CWI, UU), Statistics and Visualizations for Assessing Class Size Uncertainty
 - 03 Eduardo Gonzalez Lopez de Murillas (TU/e), Process Mining on Databases: Extracting Event Data from Real Life Data Sources
 - 04 Ridho Rahmadi (RUN), Finding stable causal structures from clinical data
 - 05 Sebastiaan van Zelst (TU/e), Process Mining with Streaming Data
 - 06 Chris Dijkshoorn (VUA), Nichesourcing for Improving Access to Linked Cultural Heritage Datasets
 - 07 Soude Fazeli (TUD), Recommender Systems in Social Learning Platforms
 - 08 Frits de Nijs (TUD), Resource-constrained Multi-agent Markov Decision Processes
 - 09 Fahimeh Alizadeh Moghaddam (UvA), Self-adaptation for energy efficiency in software systems
 - 10 Qing Chuan Ye (EUR), Multi-objective Optimization Methods for Allocation and Prediction
 - 11 Yue Zhao (TUD), Learning Analytics Technology to Understand Learner Behavioral Engagement in MOOCs
 - 12 Jacqueline Heinerman (VUA), Better Together
 - 13 Guanliang Chen (TUD), MOOC Analytics: Learner Modeling and Content Generation
 - 14 Daniel Davis (TUD), Large-Scale Learning Analytics: Modeling Learner Behavior & Improving Learning Outcomes in Massive Open Online Courses
 - 15 Erwin Walraven (TUD), Planning under Uncertainty in Constrained and Partially Observable Environments
 - 16 Guangming Li (TU/e), Process Mining based on Object-Centric Behavioral Constraint (OCBC) Models
 - 17 Ali Hurriyetoglu (RUN), Extracting actionable information from microtexts
 - 18 Gerard Wagenaar (UU), Artefacts in Agile Team Communication
 - 19 Vincent Koeman (TUD), Tools for Developing Cognitive Agents

Titles in the SIKS dissertation series since 2016

- 20 Chide Groenouwe (UU), Fostering technically augmented human collective intelligence
 - 21 Cong Liu (TU/e), Software Data Analytics: Architectural Model Discovery and Design Pattern Detection
 - 22 Martin van den Berg (VUA), Improving IT Decisions with Enterprise Architecture
 - 23 Qin Liu (TUD), Intelligent Control Systems: Learning, Interpreting, Verification
 - 24 Anca Dumitrache (VUA), Truth in Disagreement - Crowdsourcing Labeled Data for Natural Language Processing
 - 25 Emiel van Miltenburg (VUA), Pragmatic factors in (automatic) image description
 - 26 Prince Singh (UT), An Integration Platform for Synchromodal Transport
 - 27 Alessandra Antonaci (OU), The Gamification Design Process applied to (Massive) Open Online Courses
 - 28 Esther Kuindersma (UL), Cleared for take-off: Game-based learning to prepare airline pilots for critical situations
 - 29 Daniel Formolo (VUA), Using virtual agents for simulation and training of social skills in safety-critical circumstances
 - 30 Vahid Yazdanpanah (UT), Multiagent Industrial Symbiosis Systems
 - 31 Milan Jelisavcic (VUA), Alive and Kicking: Baby Steps in Robotics
 - 32 Chiara Sironi (UM), Monte-Carlo Tree Search for Artificial General Intelligence in Games
 - 33 Anil Yaman (TU/e), Evolution of Biologically Inspired Learning in Artificial Neural Networks
 - 34 Negar Ahmadi (TU/e), EEG Microstate and Functional Brain Network Features for Classification of Epilepsy and PNES
 - 35 Lisa Facey-Shaw (OU), Gamification with digital badges in learning programming
 - 36 Kevin Ackermans (OU), Designing Video-Enhanced Rubrics to Master Complex Skills
 - 37 Jian Fang (TUD), Database Acceleration on FPGAs
 - 38 Akos Kadar (OU), Learning visually grounded and multilingual representations
-
- 2020 01 Armon Toubman (UL), Calculated Moves: Generating Air Combat Behaviour

- 02 Marcos de Paula Bueno (UL), Unraveling Temporal Processes using Probabilistic Graphical Models
- 03 Mostafa Deghani (UvA), Learning with Imperfect Supervision for Language Understanding
- 04 Maarten van Gompel (RUN), Context as Linguistic Bridges
- 05 Yulong Pei (TU/e), On local and global structure mining
- 06 Preethu Rose Anish (UT), Stimulation Architectural Thinking during Requirements Elicitation - An Approach and Tool Support
- 07 Wim van der Vegt (OU), Towards a software architecture for reusable game components
- 08 Ali Mirsoleimani (UL), Structured Parallel Programming for Monte Carlo Tree Search
- 09 Myriam Traub (UU), Measuring Tool Bias and Improving Data Quality for Digital Humanities Research
- 10 Alifah Syamsiyah (TU/e), In-database Preprocessing for Process Mining
- 11 Sepideh Mesbah (TUD), Semantic-Enhanced Training Data Augmentation- Methods for Long-Tail Entity Recognition Models
- 12 Ward van Breda (VUA), Predictive Modeling in E-Mental Health: Exploring Applicability in Personalised Depression Treatment
- 13 Marco Virgolin (CWI), Design and Application of Gene-pool Optimal Mixing Evolutionary Algorithms for Genetic Programming
- 14 Mark Raasveldt (CWI/UL), Integrating Analytics with Relational Databases
- 15 Konstantinos Georgiadis (OU), Smart CAT: Machine Learning for Configurable Assessments in Serious Games
- 16 Ilona Wilmont (RUN), Cognitive Aspects of Conceptual Modelling
- 17 Daniele Di Mitri (OU), The Multimodal Tutor: Adaptive Feedback from Multimodal Experiences
- 18 Georgios Methenitis (TUD), Agent Interactions & Mechanisms in Markets with Uncertainties: Electricity Markets in Renewable Energy Systems
- 19 Guido van Capelleveen (UT), Industrial Symbiosis Recommender Systems
- 20 Albert Hankel (VUA), Embedding Green ICT Maturity in Organisations
- 21 Karine da Silva Miras de Araujo (VUA), Where is the robot?: Life as it could be

Titles in the SIKS dissertation series since 2016

- 22 Maryam Masoud Khamis (RUN), Understanding complex systems implementation through a modeling approach: the case of e-government in Zanzibar
 - 23 Rianne Conijn (UT), The Keys to Writing: A writing analytics approach to studying writing processes using keystroke logging
 - 24 Lenin da Nóbrega Medeiros (VUA/RUN), How are you feeling, human? Towards emotionally supportive chatbots
 - 25 Xin Du (TU/e), The Uncertainty in Exceptional Model Mining
 - 26 Krzysztof Leszek Sadowski (UU), GAMBIT: Genetic Algorithm for Model-Based mixed-Integer optimization
 - 27 Ekaterina Muravyeva (TUD), Personal data and informed consent in an educational context
 - 28 Bibeg Limbu (TUD), Multimodal interaction for deliberate practice: Training complex skills with augmented reality
 - 29 Ioan Gabriel Bucur (RUN), Being Bayesian about Causal Inference
 - 30 Bob Zadok Blok (UL), Creatief, Creatiever, Creatiefst
 - 31 Gongjin Lan (VUA), Learning better – From Baby to Better
 - 32 Jason Rhuggenaath (TU/e), Revenue management in online markets: pricing and online advertising
 - 33 Rick Gilsing (TU/e), Supporting service-dominant business model evaluation in the context of business model innovation
 - 34 Anna Bon (UM), Intervention or Collaboration? Redesigning Information and Communication Technologies for Development
 - 35 Siamak Farshidi (UU), Multi-Criteria Decision-Making in Software Production
-
- 2021 01 Francisco Xavier Dos Santos Fonseca (TUD), Location-based Games for Social Interaction in Public Space
 - 02 Rijk Mercuur (TUD), Simulating Human Routines: Integrating Social Practice Theory in Agent-Based Models
 - 03 Seyyed Hadi Hashemi (UvA), Modeling Users Interacting with Smart Devices
 - 04 Ioana Jivet (OU), The Dashboard That Loved Me: Designing adaptive learning analytics for self-regulated learning
 - 05 Davide Dell'Anna (UU), Data-Driven Supervision of Autonomous Systems
 - 06 Daniel Davison (UT), "Hey robot, what do you think?" How children learn with a social robot

- 07 Arnel Lefebvre (UU), Research data management for open science
- 08 Nardie Fanchamps (OU), The Influence of Sense-Reason-Act Programming on Computational Thinking
- 09 Cristina Zaga (UT), The Design of Robothings. Non-Anthropomorphic and Non-Verbal Robots to Promote Children's Collaboration Through Play
- 10 Quinten Meertens (UvA), Misclassification Bias in Statistical Learning
- 11 Anne van Rossum (UL), Nonparametric Bayesian Methods in Robotic Vision
- 12 Lei Pi (UL), External Knowledge Absorption in Chinese SMEs
- 13 Bob R. Schadenberg (UT), Robots for Autistic Children: Understanding and Facilitating Predictability for Engagement in Learning
- 14 Negin Samaeemofrad (UL), Business Incubators: The Impact of Their Support
- 15 Onat Ege Adali (TU/e), Transformation of Value Propositions into Resource Re-Configurations through the Business Services Paradigm
- 16 Esam A. H. Ghaleb (UM), Bimodal emotion recognition from audio-visual cues
- 17 Dario Dotti (UM), Human Behavior Understanding from motion and bodily cues using deep neural networks
- 18 Remi Wieten (UU), Bridging the Gap Between Informal Sense-Making Tools and Formal Systems - Facilitating the Construction of Bayesian Networks and Argumentation Frameworks
- 19 Roberto Verdecchia (VUA), Architectural Technical Debt: Identification and Management
- 20 Masoud Mansoury (TU/e), Understanding and Mitigating Multi-Sided Exposure Bias in Recommender Systems
- 21 Pedro Thiago Timbó Holanda (CWI), Progressive Indexes
- 22 Sihang Qiu (TUD), Conversational Crowdsourcing
- 23 Hugo Manuel Proença (UL), Robust rules for prediction and description
- 24 Kaijie Zhu (TU/e), On Efficient Temporal Subgraph Query Processing
- 25 Eoin Martino Grua (VUA), The Future of E-Health is Mobile: Combining AI and Self-Adaptation to Create Adaptive E-Health Mobile Applications
- 26 Benno Kruit (CWI/VUA), Reading the Grid: Extending Knowledge Bases from Human-readable Tables
- 27 Jelte van Waterschoot (UT), Personalized and Personal Conversations: Designing Agents Who Want to Connect With You

Titles in the SIKS dissertation series since 2016

- 28 Christoph Selig (UL), Understanding the Heterogeneity of Corporate Entrepreneurship Programs
-
- 2022 01 Judith van Stegeren (UT), Flavor text generation for role-playing video games
- 02 Paulo da Costa (TU/e), Data-driven Prognostics and Logistics Optimisation: A Deep Learning Journey
- 03 Ali el Hassouni (VUA), A Model A Day Keeps The Doctor Away: Reinforcement Learning For Personalized Healthcare
- 04 Ünal Aksu (UU), A Cross-Organizational Process Mining Framework
- 05 Shiwei Liu (TU/e), Sparse Neural Network Training with In-Time Over-Parameterization
- 06 Reza Refaei Afshar (TU/e), Machine Learning for Ad Publishers in Real Time Bidding
- 07 Sambit Praharaj (OU), Measuring the Unmeasurable? Towards Automatic Co-located Collaboration Analytics
- 08 Maikel L. van Eck (TU/e), Process Mining for Smart Product Design
- 09 Oana Andreea Inel (VUA), Understanding Events: A Diversity-driven Human-Machine Approach
- 10 Felipe Moraes Gomes (TUD), Examining the Effectiveness of Collaborative Search Engines
- 11 Mirjam de Haas (UT), Staying engaged in child-robot interaction, a quantitative approach to studying preschoolers' engagement with robots and tasks during second-language tutoring
- 12 Guanyi Chen (UU), Computational Generation of Chinese Noun Phrases
- 13 Xander Wilcke (VUA), Machine Learning on Multimodal Knowledge Graphs: Opportunities, Challenges, and Methods for Learning on Real-World Heterogeneous and Spatially-Oriented Knowledge
- 14 Michiel Overeem (UU), Evolution of Low-Code Platforms
- 15 Jelmer Jan Koorn (UU), Work in Process: Unearthing Meaning using Process Mining
- 16 Pieter Gijssbers (TU/e), Systems for AutoML Research
- 17 Laura van der Lubbe (VUA), Empowering vulnerable people with serious games and gamification
- 18 Paris Mavromoustakos Blom (TiU), Player Affect Modelling and Video Game Personalisation

Titles in the SIKS dissertation series since 2016

- 19 Bilge Yigit Ozkan (UU), Cybersecurity Maturity Assessment and Standardisation
 - 20 Fakhra Jabeen (VUA), Dark Side of the Digital Media - Computational Analysis of Negative Human Behaviors on Social Media
 - 21 Seethu Mariyam Christopher (UM), Intelligent Toys for Physical and Cognitive Assessments
 - 22 Alexandra Sierra Rativa (TiU), Virtual Character Design and its potential to foster Empathy, Immersion, and Collaboration Skills in Video Games and Virtual Reality Simulations
 - 23 Ilir Kola (TUD), Enabling Social Situation Awareness in Support Agents
 - 24 Samaneh Heidari (UU), Agents with Social Norms and Values - A framework for agent based social simulations with social norms and personal values
 - 25 Anna L.D. Latour (UL), Optimal decision-making under constraints and uncertainty
 - 26 Anne Dirkson (UL), Knowledge Discovery from Patient Forums: Gaining novel medical insights from patient experiences
 - 27 Christos Athanasiadis (UM), Emotion-aware cross-modal domain adaptation in video sequences
 - 28 Onuralp Ulusoy (UU), Privacy in Collaborative Systems
 - 29 Jan Kolkmeier (UT), From Head Transform to Mind Transplant: Social Interactions in Mixed Reality
 - 30 Dean De Leo (CWI), Analysis of Dynamic Graphs on Sparse Arrays
 - 31 Konstantinos Traganos (TU/e), Tackling Complexity in Smart Manufacturing with Advanced Manufacturing Process Management
 - 32 Cezara Pastrav (UU), Social simulation for socio-ecological systems
 - 33 Brinn Hekkelman (CWI/TUD), Fair Mechanisms for Smart Grid Congestion Management
 - 34 Nimat Ullah (VUA), Mind Your Behaviour: Computational Modelling of Emotion & Desire Regulation for Behaviour Change
 - 35 Mike E.U. Ligthart (VUA), Shaping the Child-Robot Relationship: Interaction Design Patterns for a Sustainable Interaction
-
- 2023 01 Bojan Simoski (VUA), Untangling the Puzzle of Digital Health Interventions
 - 02 Mariana Rachel Dias da Silva (TiU), Grounded or in flight? What our bodies can tell us about the whereabouts of our thoughts
 - 03 Shabnam Najafian (TUD), User Modeling for Privacy-preserving Explanations in Group Recommendations

Titles in the SIKS dissertation series since 2016

- 04 Gineke Wiggers (UL), The Relevance of Impact: bibliometric-enhanced legal information retrieval
- 05 Anton Bouter (CWI), Optimal Mixing Evolutionary Algorithms for Large-Scale Real-Valued Optimization, Including Real-World Medical Applications
- 06 António Pereira Barata (UL), Reliable and Fair Machine Learning for Risk Assessment
- 07 Tianjin Huang (TU/e), The Roles of Adversarial Examples on Trustworthiness of Deep Learning
- 08 Lu Yin (TU/e), Knowledge Elicitation using Psychometric Learning
- 09 Xu Wang (VUA), Scientific Dataset Recommendation with Semantic Techniques
- 10 Dennis J.N.J. Soemers (UM), Learning State-Action Features for General Game Playing
- 11 Fawad Taj (VUA), Towards Motivating Machines: Computational Modeling of the Mechanism of Actions for Effective Digital Health Behavior Change Applications
- 12 Tessel Bogaard (VUA), Using Metadata to Understand Search Behavior in Digital Libraries
- 13 Injy Sarhan (UU), Open Information Extraction for Knowledge Representation
- 14 Selma auevi (TUD), Energy resilience through self-organization
- 15 Alvaro Henrique Chaim Correia (TU/e), Insights on Learning Tractable Probabilistic Graphical Models
- 16 Peter Blomsma (TiU), Building Embodied Conversational Agents: Observations on human nonverbal behaviour as a resource for the development of artificial characters
- 17 Meike Nauta (UT), Explainable AI and Interpretable Computer Vision – From Oversight to Insight
- 18 Gustavo Penha (TUD), Designing and Diagnosing Models for Conversational Search and Recommendation
- 19 George Aalbers (TiU), Digital Traces of the Mind: Using Smartphones to Capture Signals of Well-Being in Individuals
- 20 Arkadiy Dushatskiy (TUD), Expensive Optimization with Model-Based Evolutionary Algorithms applied to Medical Image Segmentation using Deep Learning

Titles in the SIKS dissertation series since 2016

- 21 Gerrit Jan de Bruin (UL), Network Analysis Methods for Smart Inspection in the Transport Domain
 - 22 Alireza Shojaifar (UU), Volitional Cybersecurity
 - 23 Theo Theunissen (UU), Documentation in Continuous Software Development
 - 24 Agathe Balayn (TUD), Practices Towards Hazardous Failure Diagnosis in Machine Learning
 - 25 Jurian Baas (UU), Entity Resolution on Historical Knowledge Graphs
 - 26 Loek Tonnaer (TU/e), Linearly Symmetry-Based Disentangled Representations and their Out-of-Distribution Behaviour
 - 27 Ghada Sokar (TU/e), Learning Continually Under Changing Data Distributions
 - 28 Floris den Hengst (VUA), Learning to Behave: Reinforcement Learning in Human Contexts
 - 29 Tim Draws (TUD), Understanding Viewpoint Biases in Web Search Results
-
- 2024 01 Daphne Miedema (TU/e), On Learning SQL: Disentangling concepts in data systems education
 - 02 Emile van Krieken (VUA), Optimisation in Neurosymbolic Learning Systems
 - 03 Feri Wijayanto (RUN), Automated Model Selection for Rasch and Mediation Analysis
 - 04 Mike Huisman (UL), Understanding Deep Meta-Learning
 - 05 Yiyong Gou (UM), Aerial Robotic Operations: Multi-environment Cooperative Inspection & Construction Crack Autonomous Repair
 - 06 Azqa Nadeem (TUD), Understanding Adversary Behavior via XAI: Leveraging Sequence Clustering to Extract Threat Intelligence
 - 07 Parisa Shayan (TiU), Modeling User Behavior in Learning Management Systems
 - 08 Xin Zhou (UvA), From Empowering to Motivating: Enhancing Policy Enforcement through Process Design and Incentive Implementation
 - 09 Giso Dal (UT), Probabilistic Inference Using Partitioned Bayesian Networks
 - 10 Cristina-Iulia Bucur (VUA), Linkflows: Towards Genuine Semantic Publishing in Science
 - 11 withdrawn
 - 12 Peide Zhu (TUD), Towards Robust Automatic Question Generation For Learning

Titles in the SIKS dissertation series since 2016

- 13 Enrico Liscio (TUD), Context-Specific Value Inference via Hybrid Intelligence
- 14 Larissa Capobianco Shimomura (TU/e), On Graph Generating Dependencies and their Applications in Data Profiling
- 15 Ting Liu (VUA), A Gut Feeling: Biomedical Knowledge Graphs for Interrelating the Gut Microbiome and Mental Health
- 16 Arthur Barbosa Câmara (TUD), Designing Search-as-Learning Systems
- 17 Razieh Alidoosti (VUA), Ethics-aware Software Architecture Design
- 18 Laurens Stoop (UU), Data Driven Understanding of Energy-Meteorological Variability and its Impact on Energy System Operations
- 19 Azadeh Mozafari Mehr (TU/e), Multi-perspective Conformance Checking: Identifying and Understanding Patterns of Anomalous Behavior
- 20 Ritsart Anne Plantenga (UL), Omgang met Regels
- 21 Federica Vinella (UU), Crowdsourcing User-Centered Teams
- 22 Zeynep Ozturk Yurt (TU/e), Beyond Routine: Extending BPM for Knowledge-Intensive Processes with Controllable Dynamic Contexts
- 23 Jie Luo (VUA), Lamarck's Revenge: Inheritance of Learned Traits Improves Robot Evolution
- 24 Nirmal Roy (TUD), Exploring the effects of interactive interfaces on user search behaviour
- 25 Alisa Rieger (TUD), Striving for Responsible Opinion Formation in Web Search on Debated Topics
- 26 Tim Gubner (CWI), Adaptively Generating Heterogeneous Execution Strategies using the VOILA Framework
- 27 Lincen Yang (UL), Information-theoretic Partition-based Models for Interpretable Machine Learning
- 28 Leon Helwerda (UL), Grip on Software: Understanding development progress of Scrum sprints and backlogs
- 29 David Wilson Romero Guzman (VUA), The Good, the Efficient and the Inductive Biases: Exploring Efficiency in Deep Learning Through the Use of Inductive Biases
- 30 Vijanti Ramautar (UU), Model-Driven Sustainability Accounting
- 31 Ziyu Li (TUD), On the Utility of Metadata to Optimize Machine Learning Workflows
- 32 Vinicius Stein Dani (UU), The Alpha and Omega of Process Mining

- 33 Siddharth Mehrotra (TUD), Designing for Appropriate Trust in Human-AI interaction
 - 34 Robert Deckers (VUA), From Smallest Software Particle to System Specification - MuDForM: Multi-Domain Formalization Method
 - 35 Sicui Zhang (TU/e), Methods of Detecting Clinical Deviations with Process Mining: a fuzzy set approach
 - 36 Thomas Mulder (TU/e), Optimization of Recursive Queries on Graphs
 - 37 James Graham Nevin (UvA), The Ramifications of Data Handling for Computational Models
 - 38 Christos Koutras (TUD), Tabular Schema Matching for Modern Settings
 - 39 Paola Lara Machado (TU/e), The Nexus between Business Models and Operating Models: From Conceptual Understanding to Actionable Guidance
 - 40 Montijn van de Ven (TU/e), Guiding the Definition of Key Performance Indicators for Business Models
 - 41 Georgios Siachamis (TUD), Adaptivity for Streaming Dataflow Engines
 - 42 Emmeke Veltmeijer (VUA), Small Groups, Big Insights: Understanding the Crowd through Expressive Subgroup Analysis
 - 43 Cedric Waterschoot (KNAW Meertens Instituut), The Constructive Conundrum: Computational Approaches to Facilitate Constructive Commenting on Online News Platforms
 - 44 Marcel Schmitz (OU), Towards learning analytics-supported learning design
 - 45 Sara Salimzadeh (TUD), Living in the Age of AI: Understanding Contextual Factors that Shape Human-AI Decision-Making
 - 46 Georgios Stathis (Leiden University), Preventing Disputes: Preventive Logic, Law & Technology
 - 47 Daniel Daza (VUA), Exploiting Subgraphs and Attributes for Representation Learning on Knowledge Graphs
 - 48 Ioannis Petros Samiotis (TUD), Crowd-Assisted Annotation of Classical Music Compositions
-
- 2025 01 Max van Haastrecht (UL), Transdisciplinary Perspectives on Validity: Bridging the Gap Between Design and Implementation for Technology-Enhanced Learning Systems
 - 02 Jurgen van den Hoogen (JADS), Time Series Analysis Using Convolutional Neural Networks
 - 03 Andra-Denis Ionescu (TUD), Feature Discovery for Data-Centric AI
 - 04 Rianne Schouten (TU/e), Exceptional Model Mining for Hierarchical Data

Titles in the SIKS dissertation series since 2016

- 05 Nele Albers (TUD), Psychology-Informed Reinforcement Learning for Situated Virtual Coaching in Smoking Cessation
- 06 Daniël Vos (TUD), Decision Tree Learning: Algorithms for Robust Prediction and Policy Optimization
- 07 Ricky Maulana Fajri (TU/e), Towards Safer Active Learning: Dealing with Unwanted Biases, Graph-Structured Data, Adversary, and Data Imbalance
- 08 Stefan Bloemheuvel (TiU), Spatio-Temporal Analysis Through Graphs: Predictive Modeling and Graph Construction
- 09 Fadime Kaya (VUA), Decentralized Governance Design - A Model-Based Approach
- 10 Zhao Yang (UL), Enhancing Autonomy and Efficiency in Goal-Conditioned Reinforcement Learning

Curriculum Vitae

Yang, Zhao was born in Ningxian, China, in 1996. He completed his middle and high school education in Ningxian. In 2014, he began studying computer science at Beijing Language and Culture University. After earning his bachelor's degree in 2018, Zhao moved to Leiden, where he enrolled in the master's program in computer science and data science at Leiden University. He obtained his master's degree in 2020 and subsequently joined the Reinforcement Learning Group (RLG) at Leiden University as a PhD student the same year.

Zhao's research interests include deep reinforcement learning, and its application in games and robotic tasks. During his PhD studies, he took courses in academic writing, communication in science and scientific conduct, among others.