Alexander Dockhorn | Curriculum Vitae

Institut für Informationsverarbeitung, Leibniz Universität Hannover
Appelstr. 9A, 30167 Hannover, Germany

dockhorn@tnt.uni-hannover.de
adockhorn.github.io/

Education

Otto von Guericke University — **Magdeburg**
PhD, Final Grade: Summa Cum Laude — *2016–2020*

Otto von Guericke University — **Magdeburg**
M.Sc. Computer Science, Final Grade: 1.0 — *2014–2015*

University of Abertay — **Dundee**
Term abroad — *2012–2013*

Otto von Guericke University — **Magdeburg**
B.Sc. Computer Science, Final Grade: 1.2 — *2010–2014*

Working Experience

Leibniz University Hannover, Institut for Information Processing — **Hannover**
Juniorprofessor — *2022–ongoing*
- Transfer Lerning Between Complex Environments
- Explainable Machine Learning and Causality

Otto von Guericke University Magdeburg — **Magdeburg**
Postdoctoral Research Associate — *2021–2022*
- Multi-Objective Optimization and Decision-Making
- Bayesian Networks

Queen Mary University of London, Game AI Research Group — **London**
Postdoctoral Research Associate — *2020–2021*
- Decision-making in Exponentially Growing Decision Spaces
- State and Action Abstractions for Evolutionary Search Algorithms

Otto von Guericke University Magdeburg,
University Bremen and Salzgitter AG — **Salzgitter**
Research Project — *2019*
- Time Series Analysis
- Forecasting Demand

Otto von Guericke University Magdeburg, Faculty Computer Science,
CI Group, Supervisor Prof. Dr. Rudolf Kruse — **Magdeburg**
PhD Student, Research and Teaching Associate — *2016-2019*

ISC Gebhardt — **Wolfsburg**
Working Student — *2014*
- Forecasting Demand
- Bayesian Modeling

SAP Innovation Center **Potsdam**
Bachelor Internship *2013–2014*
- Medical Data Analysis for Cancer Treatment
- Bayesian Modeling

British Telecom Research **Ipswich**
Research Internship *2013*
- Frequent Item Set Mining
- Correlation and Causation Analysis

Publications

Bookchapters (4)

Dockhorn, A., & Kruse, R. (to be published). State and Action Abstraction for Search and Reinforcement Learning Algorithms. In Y. P. Kondratenko, V. Kreinovich, W. Pedrycz, A. A. Chikrii, A. M. Gil Lafuente (Eds.), Artificial Intelligence in Control and Decision-making Systems. Springer.

Dockhorn, A.. (2021). Vorhersagebasierte Suche für autonomes Spielen. In: Hölldobler, S. (Hrsg.), Ausgezeichnete Informatikdissertationen 2020. Bonn: Gesellschaft für Informatik e.V.. (pp. 69-78).

Dockhorn, A., & Kruse, R. (2021). Balancing Exploration And Exploitation in Forward Model Learning. In V. Sgurev, V. Jotsov and J. Kacprzyk (Eds.), Advances in Intelligent Systems Research and Innovation. Elsevier.

Dockhorn, A., Saxton, C., & Kruse, R. (2020). Association Rule Mining for Unknown Video Games. In M.-J. Lesot and C. Marsala and (Eds.), Fuzzy Approaches for Soft Computing and Approximate Reasoning: Theories and Applications, (pp. 257-270). Studies in Fuzziness and Soft Computing, Springer Cham.

Journal Papers (7)

Dockhorn, A., Kirst, M., Mostaghim, S., Wieczorek, M., & Zille H. (2022). Choosing Representation, Mutation, and Crossover in Genetic Algorithms, *IEEE Computational Intelligence Magazine*, (pp. 1-2).

Dockhorn, A., Kirst, M., Mostaghim, S., Wieczorek, M., & Zille H. (2022). Evolutionary Algorithm for Parameter Optimization of Context Steering Agents, *IEEE Transactions on Games*, (pp. 1-10).

Dockhorn, A., & Kruse, R. (2021). Modellheuristiken für effizientes Forward Model Learning. *at - Automatisierungstechnik*, vol. 69, no. 10, pp. 848-857.

Dockhorn, A., & Kruse, R. (2021). Fuzzy Modeling in Game AI. *TWMS Journal of Pure and Applied Mathematics*, vol. 12, no. 1, pp.54-68.

Dockhorn, A., & Kruse, R. (2020). Predicting Cards Using a Fuzzy Multiset Clustering of Decks. *International Journal of Computational Intelligence Systems*, 13(1), (pp. 1207-1217). Atlantis Press

Apeldoorn, D.,& **Dockhorn, A.** (2020). Exception-Tolerant Hierarchical Knowledge Bases for Forward Model Learning. *IEEE Transactions on Games*, (pp. 1-14).

Held, P., **Dockhorn, A.**, & Kruse, R. (2015). On Merging and Dividing Social Graphs. *Journal of Artificial Intelligence and Soft Computing Research*, 5(1), (pp. 23–49).

Conference Papers (22)

Wagner, L., Olson, C., & **Dockhorn, A.** (2022). Generalizations of Steering - A Modular Design. In: *Proceedings of the 2022 IEEE Conference on Games*. (pp. 1-4). IEEE.

Xu, L, Hurtado-Grueso, J., Jeurissen, D., Perez-Liebana, D., & **Dockhorn, A.** (2022). Elastic Monte Carlo Tree Search with State Abstraction for Strategy Game Playing. In: *Proceedings of the 2022 IEEE Conference on Games*. (pp. 1-8). IEEE.

Dockhorn, A., Mostaghim, S., Kirst, M., & Zettwitz, M. (2021). Multi-Objective Optimization and Decision-Making in Context Steering. In: *Proceedings of the 2021 IEEE Conference on Games*. (pp. 1-8). IEEE.

Dockhorn, A., Hurtado-Grueso, J., Jeurissen, D., Xu, L, & Perez-Liebana, D., Game State and Action Abstracting Monte Carlo Tree Search for General Strategy Game-Playing, In: *2021 IEEE Conference on Games (CoG)*. (pp. 1-8) IEEE.

Perez-Liebana, D., Guerrero-Romero, C., **Dockhorn, A.**, Xu, L.& Jeurissen, D. (2021). Generating Diverse and Competitive Play-Styles for Strategy Games. In: *Proceedings of the 2021 IEEE Conference on Games*. (pp. 1-8). IEEE.

Dockhorn, A., Hurtado, J., Jeurissen, D., Xu, L., & Pérez-Liébana, D. (2021) Portfolio Search and Optimization for General Strategy Game-Playing. In *Proceedings of the Congress on Evolutionary Computation (CEC)*. (pp. 2085-2092), IEEE.

Dockhorn, A., & Kruse, R. (2020). Forward Model Learning for Motion Control Tasks. *Proceedings of the IEEE Intelligent Systems IS'20*, (pp. 1-5). IEEE.

Dockhorn, A., & Lucas, S. (2020). Local Forward Model Learning for GVGAI Games. In: *Proceedings of the 2020 IEEE Conference on Games*. (pp. 1-8). IEEE.

Dockhorn, A., Lucas, S. M., Volz, V., Bravi, I., Gaina, R. D., & Pérez-Liébana, D. (2019). Learning Local Forward Models on Unforgiving Games. *In: Proceedings of the 2019 IEEE Conference on Games* (pp. 1–4). IEEE.

Lucas, S. M., **Dockhorn, A.**, Volz, V., Bamford, C., Gaina, R. D., Bravi, I., Pérez-Liébana, D., Mostaghim, S., & Kruse, R. (2019). A Local Approach to Forward Model Learning: Results on the Game of Life Game. *In: Proceedings of the 2019 IEEE Conference on Games*, 1–8. IEEE

Dockhorn, A., Schwensfeier, T., & Kruse, R. (2019). Fuzzy Multiset Clustering for Metagame Analysis. *In Proceedings of the 2019 Conference of the International Fuzzy Systems Association and the European Society for Fuzzy Logic and Technology (EUSFLAT 2019)*, (pp. 1-8). Paris, France: Atlantis Press.

Dockhorn, A., Tippelt, T., & Kruse, R. (2018). Model Decomposition for Forward Model Approximation. *In 2018 IEEE Symposium Series on Computational Intelligence* (pp. 1751–1757). IEEE.

Dockhorn, A., & Apeldoorn, D. (2018). Forward Model Approximation for General Video Game Learning. *In Proceedings of the 2018 IEEE Conference on Computational Intelligence and Games* (pp. 425–432). IEEE.

Dockhorn, A., Frick, M., Akkaya, Ü., & Kruse, R. (2018). Predicting Opponent Moves for Improving Hearthstone AI. *In 17th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems*, IPMU 2018 (pp. 621–632). Springer International Publishing.

Sabsch, T., Braune, C., **Dockhorn, A.**, & Kruse, R. (2017). Using a Multiobjective Genetic Algorithm for Curve Approximation. *In 2017 IEEE Symposium Series on Computational Intelligence*, (pp. 1-6). IEEE.

Dockhorn, A., & Kruse, R. (2017). Combining cooperative and adversarial coevolution in the context of pac-man. *In 2017 IEEE Conference on Computational Intelligence and Games*, CIG 2017 (pp. 60–67). IEEE.

Dockhorn, A., Doell, C., Hewelt, M., & Kruse, R. (2017). A decision heuristic for Monte Carlo tree search doppelkopf agents. *In 2017 IEEE Symposium Series on Computational Intelligence* (pp. 1–8). IEEE.

Dockhorn, A., Braune, C., & Kruse, R. (2016). Variable density based clustering. *In 2016 IEEE Symposium Series on Computational Intelligence* (pp. 1–8). IEEE.

Dockhorn, A., Braune, C., & Kruse, R. (2015). An Alternating Optimization Approach based on Hierarchical Adaptations of DBSCAN. *In 2015 IEEE Symposium Series on Computational Intelligence* (pp. 749–755). IEEE.

Held, P., **Dockhorn, A.**, Krause, B., & Kruse, R. (2015). Clustering Social Networks Using Competing Ant Hives. *In 2015 Second European Network Intelligence Conference* (pp. 67–74). IEEE.

Held, P., **Dockhorn, A.**, & Kruse, R. (2014). On Merging and Dividing of Barabasi-Albert-graphs. *In 2014 IEEE Symposium on Evolving and Autonomous Learning Systems* (Vol. 444, pp. 17–24).

Held, P., **Dockhorn, A.**, & Kruse, R. (2014). Generating Events for Dynamic Social Network Simulations. *15th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems*, IPMU 2014. Communications in Computer and Information Science, vol 443 (pp. 46-56). Springer, Cham

Workshop Papers (4)

Xu, L., Pérez-Liébana, D., & **Dockhorn, A.** (2022). Towards Applicable State Abstractions: a Preview in Strategy Games. In *The Multi-disciplinary Conference on Reinforcement Learning and Decision Making (RLDM) - RL as a Model of Agency Workshop*, (pp. 1-7). RLDM

Dockhorn, A., Jeurissen, D., Hurtado, J, & Pérez-Liébana, D. (2020). STRATEGA - A General Strategy Games Framework. In *Artificial Intelligence for Strategy Games Decision, AIIDE 2020 Workshop*, (pp. 1-7). AAAI

Gaina, R., Balla, M., **Dockhorn, A.**, Montolio, R., & Pérez-Liébana, D. (2020). TAG - Tabletop Games Framework. In *Experimental AI in Games (EXAG), AIIDE 2020 Workshop*, (pp. 1-7). AAAI

Dockhorn, A., & Kruse, (2018). Detecting Sensor Dependencies for Building Complementary Model Ensembles. *In Proceedings. 28. Workshop Computational Intelligence*, Dortmund, 29.-30. November 2018 (pp. 217–234).

Preprint Papers (3)

Pérez-Liébana, D, **Dockhorn, A.**, Hurtado Grueso, J., & Jeurissen D. (2020). The Design Of "Stratega": A General Strategy Games Framework, (pp. 1–7). `https://arxiv.org/abs/2009.05643`

Gaina, R. D., Balla, M., **Dockhorn**, A., Montoliu, R., & Pérez-Liébana D. (2020). Design and Implementation of TAG: A Tabletop Games Framework, (pp. 1–24). `https://arxiv.org/abs/2009.12065`

Dockhorn, A., & Mostaghim, S. (2019). Introducing the Hearthstone-AI Competition, (pp. 1–4). `http://arxiv.org/abs/1906.04238`

Theses and Dissertation

Dockhorn, A. (2020). Dissertation: Prediction-based Search for Autonomous Game-Playing, (pp. 1–231). Otto von Guericke University of Magdeburg.

Dockhorn, A. (2015). Master Thesis: Hierarchical Extensions and Cluster Validation Techniques for DBSCAN, (pp. 1–101). Otto von Guericke University of Magdeburg.

Dockhorn, A. (2014). Bachelor Thesis: Computergestützte Analyse onkologischer Daten mithilfe Graphischer Modelle, (pp. 1–80). Otto von Guericke University of Magdeburg.

Talks and Presentations

Generalizations of Steering - A Modular Design — **Beijing (online)**
IEEE Conference on Games (COG) — *2022*

Keynote — Playing Games to Learn – From Specialist to Generalist AI — **San Juan (online)**
2022 IEEE Biennial Congress of Argentina (ARGENCON) — *2022*

Invited Talk — General Strategy Game Playing - A new challenge for AI — **Manchester (online)**
Manchester Metropolitan University — *2021*

Vorhersagebasierte Suche für autonomes Spielen — **Wadern (online)**
GI Disserationspreis — *2021*

Game State and Action Abstracting Monte Carlo Tree Search for General Strategy Game-Playing — **Copenhagen (online)**
IEEE Conference on Games (COG) — *2021*

Multi-Objective Optimization and Decision-Making in Context Steering — **Copenhagen (online)**
IEEE Conference on Games (COG) — *2021*

Portfolio Search and Optimization for General Strategy Game-Playing — **Kraków (online)**
EEE Congress on Evolutionary Computation (CEC) — *2021*

Keynote — Predictive Search: Algorithms and Applications — **Zagreb (online)**
International Symposium on Signal and Image Processing (ISSIP) — *2020*

Plenary Lecture — Forward Model Learning for Motion Control Tasks — **Varna (online)**
IEEE Intelligent Systems (IS) — *2020*

STRATEGA - A General Strategy Games Framework — **Worcester (online)**
AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE) — *2020*

Local Forward Model Learning for GVGAI Games — **Osaka (online)**
IEEE Conference on Games (COG) — *2020*

Fuzzy Multiset Clustering for Metagame Analysis — **Prague**
11th Conference of the European Society for Fuzzy Logic and Technology (EUSFLAT) — *2019*

Learning Local Forward Models on Unforgiving Games — **London**
2019 IEEE Conference on Games (COG) — *2019*

Generalisation of Simulation-Based Search for Autonomous Gameplaying — **QMUL London**
Invited Talk - Game AI Research Group — *2019*

Generalisation of Simulation-Based Search for Autonomous Gameplaying — **OVGU Magdeburg**
Doktorandentag der Fakultät für Informatik — *2019*

Detecting Sensor Dependencies for Building Complementary Model Ensembles — **Dortmund**
28. Workshop Computational Intelligence — *2018*

Forward Model Approximation for General Video Game Learning — **Maastricht**
Conference on Computational Intelligence and Games (CIG) — *2018*

Predicting Opponent Moves for Improving Hearthstone AI — **Cádiz**
International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU) — *2018*

A decision heuristic for Monte Carlo tree search doppelkopf agents — **Hawaii**
2016 IEEE Symposium Series on Computational Intelligence (SSCI) — *2017*

Using a Multiobjective Genetic Algorithm for Curve Approximation — **Hawaii**
2016 IEEE Symposium Series on Computational Intelligence (SSCI) — *2017*

Combining cooperative and adversarial coevolution in the context of pac-man — **New York**
Conference on Computational Intelligence and Games (CIG) — *2017*

Variable density based clustering — **Athen**
2016 IEEE Symposium Series on Computational Intelligence (SSCI) — *2016*

An Alternating Optimization Approach based on Hierarchical Adaptations of DBSCAN — **Cape Town**
2015 IEEE Symposium Series on Computational Intelligence (SSCI) — *2015*

Generating Events for Dynamic Social Network Simulations — **Montpellier**
2014 International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU) — *2015*

Awards and Honours

Best Paper Award
IEEE Intelligent Systems 2020 for the paper *2020*
"Forward Model Learning for Motion Control Tasks"

Best Dissertation Award
Department of Computer Science at the Otto von Guericke University *2019/20*

Distinguished Student Paper
EUSFLAT 2019 for the paper *2019*
"Fuzzy Multiset Clustering for Metagame Analysis"

Best Presentation Award
Doctoral Symposium at the Otto von Guericke University *2018/2019*

Nominee for the "Otto von Guericke Teaching Award" 2018
Otto von Guericke University *2018*

Runner-Up Teaching Award "Held der Lehre" for the seminar "Classification Algorithms"
Students council of the Department for Computer Science *2017/2018*

Runner-Up Teaching Award "Held der Lehre" for the tutorial on "Intelligente Systeme"
Students council of the Department for Computer Science *2015/2016*

Best Computer Science Master Graduate
Department of Computer Science at the Otto von Guericke University *2015/2016*

Grants and Sponsored Research Activities

Scholarship
"Graduiertenförderung des Landes Sachsen-Anhalt" *2016 – 2018*

Commitment

IEEE Computational Intelligence Society (IEEE CIS)
Member of the IEEE CIS Member Activities Committee *since 2021*
Chair of the IEEE CIS Website Sub-Committee *since 2021*
Member of the IEEE CIS Women in Computational Intelligence Sub-Committee *since 2021*
Member of the IEEE CIS Content Curation Sub-Committee *since 2021*
Member of the IEEE CIS Student Activities Sub-Committee *since 2021*
Chair of the IEEE CIS Competition Sub-Committee *since 2020*
Member of the IEEE CIS Education Committee *since 2020*
Member of the IEEE CIS Games Technical Committee *since 2020*
Vice-Chair of the IEEE CIS Competition Sub-Committee *2017-2019*

Otto von Guericke University, Faculty of Computer Science
Member of the Research Commission *2016-2019*

Student Game Developer Club - Acagamics e.V.
Head of Teaching *2017-2018*
Head of Industry *2016-2017*

Faculty Student Council, Otto von Guericke University, Faculty of Computer Science
Organizer of several events *2013-2015*

Conference, Special Session, and Competition Organization

IEEE Congress on Evolutionary Computation (CEC)
Competition Chair *2023*

IEEE World Congress on Computational Intelligence (WCCI)
Organizer of the Special Session on Games *2022*

IEEE Congress on Evolutionary Computation (CEC) &
Genetic and Evolutionary Computation Conference (GECCO)
Organizer of the AbstractSwarm Multi-Agent Logistics Competition *2021-2022*

IEEE Symposium Series on Computational Intelligence (SSCI)
Organizer of the Interactive Articles and Videos for Education Competition *2021*

International Conference on Cognitive and Intelligent Computing (ICCIC)
Member of the Advisory Committee *2021*

IEEE Conference on Games (COG)
Organizer of the General Strategy Game AI Competition *2021*
Tutorial on General Strategy Game AI *2021*

IEEE Congress on Evolutionary Computation (CEC)
Organizer of the Special Session on Games *2021*

IEEE Conference on Games (COG; former IEEE CIG)
Organizer of the Hearthstone AI Competition *2018-2020*

IEEE Conference on Games (COG; former IEEE CIG)
Organizer of the Short Video Competition *2019-2020*

Reviewer Activities

Journals

- IEEE Computational Intelligence Magazine (CIM)
- IEEE Transactions on Games (TOG)
- IEEE Transactions on Artificial Intelligence (TAI)
- IEEE Access
- ACM Computing Surveys
- Mathematics and Computers in Simulation (MATCOM)
- KI - Künstliche Intelligenz
- Elsevier Information Sciences
- International Journal of Neural Systems (IJNS)
- MDPI Sensors, MDPI Games
- IEEE Transactions on Emerging Topics in Computational Intelligence (TETCI)

Programme Committee Member

- The Genetic and Evolutionary Computation Conference (GECCO) 2021
- IEEE Conference on Games (COG) 2022, 2021, 2020, 2019
- AAAI Conference on Artificial Intelligence and Interactive Digital Entertainment (AIIDE) 2020

Conference Reviewer

- AAAI Conference on Artificial Intelligence (AAAI), 2023
- IEEE World Congress on Computational Intelligence (WCCI), 2022
- IEEE Conference on Games (COG), 2022, 2021, 2020, 2019
- IEEE Conference on Computational Intelligence in Games (CIG), 2018
- IEEE Symposium Series on Computational Intelligence (SSCI) 2022, 2020, 2016

- The Genetic and Evolutionary Computation Conference (GECCO) 2022, 2020
- Conference of the European Society for Fuzzy Logic and Technology (Eusflat) 2019
- International Conference on Artificial Intelligence and Soft Computing (ICAISC) 2019
- Conference on Hybrid Intelligent Systems (HIS) 2018
- Conference on Theory and Practice of Natural Computing (TPNC) 2018
- International Symposium on Intelligent Data Analysis (IDA) 2017, 2016
- Australasian Joint Conference on Artificial Intelligence (AI) 2016
- IEEE Intelligent Systems (IS) 2016

Teaching Activities

Lecturer of the Institute for Information Processing

Introduction to Game Development	*WS 2022/2023*
Seminar: Reinforcement Learning	*SS 2022*

Appointed Lecturer of the *Computational Intelligence* working group

Computational Intelligence in Games	*SS 2018*

Teaching Assistant of the *Computational Intelligence* working group

Fuzzy Systems	*SS 2019*
Bayes Networks	WS2021/2022 WS 2019/2020 WS 2018/2019 WS 2017/2018 WS 2015/2016
Computational Intelligence in Games	*SS 2019* *SS 2017*
Neural Networks	*SS 2018* *SS 2015*
Seminar Classification Algorithms	*WS 2017/2018*
Intelligente Systeme	*WS 2015/2016* *WS 2014/2015*
Einführung in die Informatik	*WS 2011/2012*

(Co-)Supervised Theses

2022

Abstract Forward Models for Game AI (working title) *Linxie Xu*	**PhD Thesis** *(ongoing)*
Driving-AI for Real-Time-Traffic-Simulations *Marius Schmidt*	**Bachelor Thesis** *2022*
Search-based Procedural Content Generation with Rolling Horizon Evolutionary Algorithm for Tile-based Map Generation *Christian Wustrau*	**Master Thesis** *2022*

Optimizing Deck-building Strategies for Collectible Card Game AI — **Bachelor Thesis**
Can Tuna — *2022*

Quality Diversity Optimization for Portfolio-Based Search Algorithms in Real-Time Strategy Games — **Bachelor Thesis**
Till Isenhuth — *2022*

Context Steering with Differential-Drive Robots: Reactive Navigation based on Multi-Objective Decision-Making — **Master Thesis**
Nele Traichel — *2022*

2021

Action Abstractions and Real-Time Search for RTS Games (working title) — **Master Thesis**
Muttahir Mumtaz — *2021*

Procedural Generation of Rube Goldberg Machines (working title) — **Bachelor Thesis**
Tomoya Hömberg — *2021*

2020

Neural Network-based Adaption of Rapidly Exploring Random Trees for Motion Planning — **Master Thesis** *2020*
Maximilian Kühn

2019

DeePolation: AI-based interpolation on multi-dimensional spherical sensors — **Master Thesis**
Martin Zettwitz — *2019*

Clustering of Longitudinal Disease Progression Data — **Master Thesis**
Aditya Nemali — *2019*

Evolutionäre Agenten-Generierung für HearthStone — **Bachelor Thesis**
Bastian Heinrich — *2019*

Schaffung von Modellierungsansätzen zur Interaktionsvorhersage unbekannter Spiele — **Master Thesis** *2019*
Tim Tippelt

Multivariate Time Series Sensor Data Clustering — **Master Thesis**
Sourabh Dandage — *2019*

Prediction of Player Moves in Collectible Card Games — **Master Thesis**
Tony Schwensfeier — *2019*

2018

Multikriterielle Wegfindung für Agentengruppen — **Bachelor Thesis**
Maurice Hoffmeister — *2018*

Classification of Differently Trained Larvae based on Changes in their Trajectories using Artificial Neural Networks — **Bachelor Thesis** *2018*
Jonathan Spiegel

Robust and Transferable Reflectance Reconstruction Using Deep Neural Networks — **Master Thesis** *2018*
Cornelius Styp von Rekowski

Regression Analysis for Power Consumption of a Production Plant — **Master Thesis**
Sujan Adhikari — *2018*

Ermitteln der Siegbedingung unbekannter Spiele durch Assoziationsanalyse — **Bachelor Thesis**
Chris Saxton — *2018*

Optimising All-Shortest-Path Dictionaries using Machine Learning — **Master Thesis**
Jannis Becke — *2018*

Designing an Interface between Data System and Root Cause Evaluation to enhance analysis strategy utilizing a larger Database for Tire Design, Manufacturing and Evaluation Process — **Master Thesis**
Pankaj Narula — *2018*

2017

Entscheidungsheuristische Erweiterung des UCT-Algorithmus für Doppelkopf — **Master Thesis**
Matthias Hewellt — *2017*

Kursverlaufvorhersage von Wertpapieren mit Hilfe von Ensemble Classification — **Bachelor Thesis**
Leopold Ryll — *2017*