Curriculum Vitae – Prof. Dr.-Ing. Jürgen Bernard

Personal Data

Name	Jürgen Bernard
Birth date	January 21st, 1981.
Birth place	Lohr am Main, Bavaria, Germany
Family status	Married
Nationality	German
Citizenship	Switzerland
Position	Assistant Professor, Group Head
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Jürgen Bernard

Assistant Professor of Computer Science at University of Zurich
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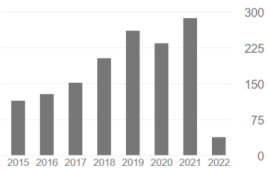
Visual Analytics Information Visualization Data Science
Interactive Machine Learning Time Series

	All	Since 2017
Citations	1658	1182
h-index	22	19
i10-index	41	28



Abstract

I am an Assistant Professor of Computer Science at the University of Zurich (UZH), Switzerland, and head of the *Interactive Visual Data Analysis* (IVDA) Group. I have studied Computer Sciences with focus on Computer Graphics at the University of Technology of Darmstadt. I was with Fraunhofer IGD, when I received my PhD degree in 2015, entitled "Exploratory Search in Time-Oriented Primary Data". In 2016, my work was awarded with the **Hugo-Geiger Prize** for excellent PhD theses. In 2017, I also received the **Dirk Bartz Prize** for Visual Computing in Medicine. My first post-doc phase was at TU Darmstadt, Germany, where I was leading the *Visual-Interactive Machine Learning* research group in the Interactive Graphics Systems Group (GRIS). In 2019, I became a postdoctoral research fellow at the University of British Columbia, Vancouver, Canada, where I joined Professor Tamara Munzner's InfoVis group. In 2021, my work in visual analytics was awarded with the **Eurovis Young Researcher Award**. In 2022, my contributions to computer graphics in the area of information visualization and visual analytics were awarded with the **Eurographics Young Researcher Award**.

My primary research includes the characterization, design, and evaluation of visual-interactive interfaces to combine the strengths of both humans and algorithms in interactive machine learning and data science applications. My data-centered focus is on time series data as well as multivariate data. My technique-driven focus ranges from unsupervised to supervised machine learning including cluster analysis, dimensionality reduction, active learning, regression analysis, and classification. From a task perspective, much of my work supports exploratory data analysis, i.e., sense-making, decision-making, and hypotheses-building for undiscovered data. Important application domains so far include climate and Earth observation, digital libraries, human motion analysis, service and energy network analysis, political decision-making, music classification, sports data analysis, stock chart analysis, as well as health and patient-related research in particular.

Research Summary

My publication list contains over 90 entries, about half authored in the leading position. My **h-index** is **22**, my i10-index 41 (as of 2022-03-08), my works have received at least **1658 citations**. My publication list includes 25 peer-reviewed journal publications, 26 stringently peer-reviewed conference full papers, and overall almost ten award-bringing entries. My personal network consists of **more than 100** different **co-authors** in the visualization community and beyond.

Research Interest and Competences

Information Visualization – Visual Analytics – Data Science – Data Mining – Visual-Interactive Machine Learning – Time Series Analysis – Event Sequence Analysis – Multivariate Data Analysis – Visual Cluster Analysis – Exploratory Search – Semi-Supervised and Active Learning – Visual-Interactive Labeling of Data – Dimensionality Reduction – Interactive Similarity Search – Interactive Information Retrieval – Multi-Criteria Item Ranking – Design Studies – User-Centered Design – Human-Computer Interaction – Human Factors – Personalized Data Analytics – Medical Data Visualization and Analysis – Patient-Centered Health

Education

2019 – 2020	**Postdoctoral Research Fellow** at University of British Columbia (UBC), Computer Science Department, Vancouver, BC, Canada
2016 – 2019	**Higher Education Teaching Certificate** at Center for Educational Development and Technology (Deutsche Gesellschaft für Hochschuldidaktik), TU Darmstadt, Germany
2016 – 2019	**Postdoctoral Research Fellow** at Interactive Graphics Systems Group (GRIS), Computer Science Department, TU Darmstadt, Germany
2015	**PhD (Dr.-Ing.) in Computer Science** with **"summa-cum-laude"**, Fraunhofer Institute for Computer Graphics (IGD), TU Darmstadt, Germany Thesis: Exploratory Search in Time-Oriented Primary Data
2010 – 2015	**PhD Student**, Computer Science Faculty, TU Darmstadt, Germany
2009	**Dipl.-Inf. in Computer Science** Master degree with Grade 1/A (best), TU Darmstadt, Germany Thesis: Quality Assessment of Self-Organizing Maps to Support the Visual Analytics Process
2001 – 2009	**Academic Studies** at TU Darmstadt, Germany
2000	**High School Graduation** (Abitur), Lohr am Main, Bavaria, Germany

Work Experience

2020 – Present	**Assistant Professor** of Computer Sciences at University of Zurich (UZH), Computer Science Department, Zurich, Switzerland Focus: Interacting with Data
2020 – Present	**Group Leader - Interactive Visual Data Analysis Group** at University of Zurich (UZH), Computer Science Department, Zurich, Switzerland Focus: Interactive Visual Data Analysis, Human-Centered Data Science
2019 – 2020	**Postdoctoral Research Fellow** at University of British Columbia (UBC), Computer Science Department, Vancouver, BC, Canada Focus: Interactive Machine Learning, Design Studies, Medical Data Analysis

2017 – 2019	**Group Leader - Visual-Interactive Machine Learning Group** at Interactive Graphics Systems (GRIS), Visual Computing, Computer Science, TU Darmstadt, Germany Focus: Interactive Machine Learning, Visual Analytics, Active Learning
2012 – 2016	**Researcher**, Fraunhofer Institute for Computer Graphics Research IGD, Germany Focus: Visual Analytics, Exploratory Search, Visual Cluster Analysis, Time-oriented Primary Data, User-centered Design, Digital Libraries
2010 – 2011	**Researcher (PhD Student)**, TU Darmstadt, Germany Focus: Visual Analytics, Visual Cluster Analysis, Time Series Analysis
2007 – 2009	**Assistant Researcher**, TU Darmstadt, Germany Focus: Visual Analytics, Visual Cluster Analysis, Time Series Analysis
2008	**Software Engineer** internship at Electronic Drives and Controls GmbH, Lohr, Germany Focus: Time Series Visualization and Analysis, Electronic Drives Temperature Monitoring
2005 – 2007	**Work Student (Software Engineer)** at Bosch, Rexroth Electronic Drives and Controls GmbH, Lohr am Main, Germany
2001 – 2004	**Work Student (Software Engineer)** at Rexroth Indramat GmbH, Lohr am Main, Germany
2000 – 2001	**Civilian Service (Male Nurse)** at a Geriatric Nursing Center in Lohr am Main, Germany

Awards, Honors, and Achievements

EuroGraphics Young Researcher Award	EuroGraphics, Reims, FR)	2022
Best Paper Award	IEEE VIS, New Orleans, USA	2021
EuroVis Young Researcher Award	EuroVis, Zurich, CH	2021
Best Paper Award	EuroVA, Zurich, CH	2021
Best Paper Award	EuroVA, Norrköping, SWE	2020
EuroVA 4th Most-Contributor All-Time – 8 Papers	10th Anniversary of EuroVA, Porto, PT	2019
Higher Education Teaching Certificate	Deutsche Gesellschaft für Hochschuldidaktik, GER	2019
Best Paper Award Nominee	EuroVA, Porto, PT	2019
Datenlotsen Preis	Best Student Thesis of Christian Ritter, TU Darmstadt	2018
Best Paper Award Nominee	EuroVA, Brno, CHR	2018
EuroVis Best PhD Dissertation Award Nominee	EuroVis, Brno, CHR	2018
Dirk Bartz Prize	Visual Computing in Medicine, EuroGraphics, Lyon, FR	2017
Heidelberg Laureate Forum Participant	Heidelberg Laureate Forum, Heidelberg, GER	2017
Best Paper Award	InfoVis Theory and Appl. (IVAPP, Porto, PT	2017
Hugo-Geiger Preis	Fraunhofer Gesellschaft, München, GER	2016
Excellent Dissertations Nominee Computer Science	Gesellschaft für Informatik (GI), Dagstuhl, GER	2016
Best Industrial Project Award	Fraunhofer IGD, Darmstadt, GER	2016
Best Paper Award – Impact on Society	Fraunhofer IGD, Darmstadt, GER	2016
Best Paper Award Nominee	EuroVA, Groningen, NED	2016
GYSS Participant	Global Young Researchs Summit (GYSS), Singapore	2017
Best Paper Award	i-KNOW, Graz, AUT	2014
Best Industrial Project Award	Fraunhofer IGD, Darmstadt, GER	2014
Best Paper Award Nominee – Impact on Society	Fraunhofer IGD, Darmstadt, GER	2013
Best Paper Award	Digital Libraries (JCDL), Washington (DC), USA	2012
Best Paper Award Nominee – Impact on Society	Fraunhofer IGD, GER	2012
Best Paper Award	Fraunhofer IGD, Darmstadt, GER	2010
Best Diploma Thesis Award	Fraunhofer IGD, Darmstadt, GER	2010

Higher Education Teaching Certificate (Zertifikat Hochschullehre)

This internationally recodnized certificate is the result of a three-year expert training for teaching at university, including lectures, exercises, and student supervision. The modules of the certificate are hosted by HDA, the Center for Educational Development and Technology, TU Darmstadt, Germany (Deutsche Gesellschaft für Hochschuldidaktik).

Teaching Portfolio and Reflection on Teaching – Written Report (99 pages, available on request)[1]	2019
Expert-Guided Teaching Project	2019
Reflection on Teaching Workshops and Transfer to own Teaching – Written Report	2018
Teaching International Students, HDA[2] Darmstadt, Germany	2018
Visualization Techniques with Flip Charts, Ingenium[3], Darmstadt, Germany	2018
Competence-Oriented Teaching, HDA, Darmstadt, GER	2018
Motivating Students in Academia, HDA, Darmstadt, GER	2018
Supervision of Student Theses, HDA, Darmstadt, GER	2018
Guided Reflection on own Teaching Philosophy, HDA, Darmstadt, GER	2018
Expert Evaluation of own Teaching Methods II, HDA, Darmstadt, GER	2018
Expert Evaluation of own Teaching Methods I, HDA, Darmstadt, GER	2017
Cooperative Advice Coaching in Teaching Practice, HDA, Darmstadt, GER	2017
Teaching Work Shadowing and Evaluation, HDA, Darmstadt, GER	2017
Peer Feedback Training with Online Scenarios, HDA, Darmstadt, GER	2017
Enhancing Students towards Self-Organized Learning and Working, HDA, Darmstadt, GER	2017
Effective Teaching – Basics P2, HDA, Darmstadt, GER	2017
Effective Teaching – Basics P1, HDA, Darmstadt, GER	2016

Professional Development

Leadership and Collaboration curriculum: Dynamics of Team Collaboration, UZH, Zurich, CH	2022
Leadership and Collaboration curriculum: Effective Adaptive Leadership, UZH, Zurich, CH	2022
Leadership and Collaboration Curriculum: Introduction and Taster Session, UZH, Zurich, CH	2021
Introduction to Open Science, Einführung in Open Science, UZH, Zurich, CH	2021
OLAT (Online Learning and Training) for Course Authors, UZH, Zurich, CH	2021
Python - Data Analysis Essentials, UZH, Zurich, CH	2021
Set Yourself Up for Success, UBC, Vancouver, BC, CAN	2019
Marie Sklodowska-Curie Masterclass, Aarhus University, Aarhus, DEN	2019
Visualization Techniques with Flip Charts, Ingenium, Darmstadt, GER	2018
Patent and Patent Inquiry, TU Darmstadt, GER	2017
Third-Party Funding Acquisition, TU Darmstadt, GER	2016
Deputy Head: Between Team and Senior Management, TU Darmstadt, GER	2016
Tableau, Hands-on Session, TU Darmstadt, GER	2016
Communication Training (Gewinnend und wirksam kommunizieren), Fraunhofer 2 , GER	2014
Presentation Training (Professionell präsentieren), Fraunhofer, GER	2013
Java Intensive Workshop (JAX – Java, Architecture and Software Innovation), Mainz, GER	2013
Project Management, Fraunhofer, GER	2012
First Aid certificate, TU Darmstadt, GER	2010

Professional Activities: Conference Organization

EuroVA (Eurographics, EG): Workshop on Visual Analytics	Co-Organizer	2022
VAHC (IEEE/ACM VIS): Workshop on Visual Analytics in Health Care	Steering Committee	2021
VAHC (IEEE/ACM VIS): Workshop on Visual Analytics in Health Care	Co-Organizer	2021
EuroVis (Eurographics, EG): Conference on Visualization	Workshops Chair	2021
EuroVA (Eurographics, EG): Workshop on Visual Analytics	Co-Organizer	2021
VAHC (IEEE/ACM VIS): Workshop on Visual Analytics in Health Care	Co-Organizer	2019
VAHC (IEEE/ACM VIS): Workshop on Visual Analytics in Health Care	Co-Organizer	2017
VAHC (IEEE/ACM VIS): Workshop on Visual Analytics in Health Care	Co-Organizer	2015

Professional Activities: Program Committees

VIS	IEEE	Visualization & Visual Analytics	2022
VAST	IEEE	Conference on Visual Analytics Science and Technology	2018, 2019, 2020
EuroVis	EG/VGTC	Conference on Visualization	2021, 2022
EuroVis	EG/VGTC	Conference on Visualization, Short Paper Track	2017, 2018, 2019, 2020
EuroVA	EG/VGTC	Workshop on Visual Analytics	2022
VIS	IEEE	Conference on Advances in Visualization and Visual Analytics (Short)	2020, 2021
VAHC	IEEE/ACM	VIS Workshop on Visual Analytics in Health Care	2015, 2017, 2019, 2021
BELIV	IEEE VIS	WS on Evaluation and Beyond - Methodological Approaches for Vis	2018, 2020
VISxAI	IEEE VIS	Workshop on Visualization for AI Explainability	2018, 2019, 2021
VMV	EG	Symposium on Vision, Modeling, and Visualization	2018, 2019, 2020, 2021, 2022
IVAPP	EG	Conference on Information Visualization Theory and Applications	2017, 2018
TIME	LIPIcs	International Symposium on Temporal Representation and Reasoning	2021

Professional Activities: Community Memberships

DSI	Digital Society Initiative (DSI), Zurich, Switzerland
GI	Gesellschaft für Informatik (GI), Germany
GI-VIS	Gesellschaft für Informatik (GI), Fachgruppe Visualisierung (VIS), Germany
EG	EuroGraphics (EG) Association
SI	Swiss Informatics Society (SI), Switzerland
DHV	Deutscher Hochschulverband (DHV), Germany
IEEE	Institute of Electrical and Electronics Engineers (IEEE)
ACM	Association for Computing Machinery (ACM)
HLF	Heidelberg Laureate Forum (HLF) Alumni, Heidelberg, Germany
HCIL HCAI	Human-Centered Artificial Intelligence Group (HCAI)

Professional Activities: Peer Reviewing

TVCG	IEEE	Transactions on Visualization and Computer Graphics	2020, 2021
TiiS	ACM	Transactions on Interactive Intelligent Systems	2020
CGF	EG	Computer Graphics Forum	2016, 2017, 2019, 2020
C&G	Elsevier	Computers and Graphics	2021
Access	IEEE	Access	2020
Algorithms	MDPI	Algorithms	2021
TOG	ACM	Transactions on Graphics	2021
IV	SAGE	Information Visualization	2019
TMM	IEEE	Transactions on Multimedia	2016
IJoDL	Springer	Journal on Digital Libraries	2016
VIS	IEEE	Conf. on Visualization & Visual Analytics	2021, 2022
VAST	IEEE	Conf. on Visual Analytics Science and Technology	2016, 2018, 2019, 2020
InfoVis	IEEE	Conf. on Information Visualization Conference	2015, 2017, 2020
EuroVis	EG/VGTC	Conf. on Visualization	2016, 2017, 2018, 2019, 2020, 2021
EuroVis	EG/VGTC	Conf. on Visualization, STAR Reports	2020, 2022
CHI	ACM	Conf. on Human Factors in Computing Systems	2018
VIS	IEEE	Conf. on Visualization & Visual Analytics, Short Papers	2021
InfoVis	IEEE	Conf. on Information Visualization, Short Papers	2020
EuroVis	EG/VGTC	Conf. on Visualization, Short Papers	2017, 2018, 2019, 2020
PacificVis	IEEE	Pacific Visualization Symposium	2019, 2020, 2021
VAHC	IEEE/ACM	VIS WS on Visual Analytics in Health Care	2015, 2017, 2021
BELIV	IEEE	VIS WS on Evaluation and Beyond	2018, 2020
VISxAI	IEEE	VIS WS on Visualization for AI Explainability	2018, 2019, 2020
VISReg	IEEE	VIS WS on Visual Summaries & Report Generation	2018
IVAPP	EG	Information Visualization Theory and Applications	2017, 2018
VMV	EG	Symposium on Vision, Modeling, and Visualization	2016, 2018, 2019, 2020, 2021
TIME	LIPIcs	Symposium on Temporal Representation and Reasoning	2021

Invited Speaker Talks

Interacting with Data 2021
University of Zurich (UZH), Inaugural Lecture, Zurich, CH

Problem-Driven and Human-Centered Visual Analytics 2021
University of Rostock, GER

Interactive Data Science with the Human-in-the-Loop 2021
BMW, Munich, GER

Interactive Visual Data Analysis 2020
University of Zurich, CH

Enhancing Interactive Machine Learning 2019
Johannes Kepler University Linz, AUT

Enhancing Human Centered and Interactive Machine Learning 2019
Aarhus University, Denmark

Enhancing Human-Centered Machine Learning with Visual Analytics 2019
Visual Computing Forum, University of Bergen, Norway

Enhancing Interactive Data Science with Visual Analytics 2019
University of Rostock, GER

Visual-Interactive Data Science 2019
University of Zurich, CH

Transparent Machine Learning with Visual Analytics 2018
VIS in Practice, IEEE VIS, Berlin, GER

Visual-Interactive Machine Learning 2018
TU Graz, AUT

Visual-Interactive Data Science 2018
City, University of London, UK

Visual-Interactive Machine Learning 2018
University of Konstanz, GER

Interactive Visual Data Science – Solutions to the Data-Labeling Problem 2018
University of Trier, GER

Data Visualization and Visual Analytics 2018
Graduate School of Excellence Computational Engineering (CE), TU Darmstadt, GER

Machine Learning with the User-in-the-Loop 2018
VRVis, Center for Virtual Reality and Visualization, Vienna, AUT

Visual-Interactive Machine Learning for Time-Oriented Data 2018
University of Konstanz, GER

Visual Analytics of Clinical Healthcare Data for the Prostate Cancer Disease 2017
IEEE VIS, Tutorial: Visual Analytics of Cohort Study Data – From Individuals to Populations, Phoenix, AZ, USA

Visual Computing for Big Data Analysis in Prostate Cancer Research 2017
Dirk Bartz Price Talk, Eurographics, Lyon, France

Exploratory Search in Time-Oriented Data 2017
Vienna University of Technology, AUT

Visual Analytics meets Machine Learning 2017
St. Poelten University of Applied Sciences, AUT

Visual Analytics meets Human Motion Analysis 2016
University of Bonn, GER

Explorative Suche in Zeitbasierten Primärdaten 2016
Gesellschaft für Informatik (GI), Dagstuhl, GER

Exploratory Search in Time-Oriented Primary Data 2015
PhD Defense, University of Darmstadt, GER

Relation Seeking between Time Series Data and Multivariate Data 2015
Artificial Intelligence (AI), Cambridge, United Kingdom

Visual Analysis of Time-oriented Data 2013
British Telecom, Ipswich, United Kingdom

Visual Analysis of Time-oriented Data 2013
Artificial Intelligence (AI), Cambridge, United Kingdom

Content-based vs. Metadata-based Search and Analysis – Basic Research and Applications 2012
Research Worksop, University of Konstanz, GER

Visual Access to Time-Oriented Scientific Primary Data – Advances in the VisInfo Project 2011
Deutsches Klimarechenzentrum (DKRZ), Hamburg, GER

Visualization and Search Approaches for Time-Oriented Scientific Primary Data 2010
DataCite Workshop, Hannover, GER

Collaborative Research Projects including Acquisition of Funding

Acodis – User-Based Formalization of Text Documents through Interactive Clustering and Data Labeling: Industrial research project funded by Acodis, Winterthur, CH, Budget: 5k CHF — 2022

BMW – Interactive analysis of sensor data (IAS): Industrial research project funded by BMW, München, GER, Budget: ca. 95k € — 2021

DSI – Data Science Initiative (DSI) Post-doctoral Matching Fund Application: Awarded scholarship at UBC, with Prof. Tamara Munzner(UBC), Budget: ca. 40k CAD — 2020

DAAD – German Academic Exchange Service / Deutscher Akademischer Austauschdienst: Awarded scholarship at UBC, with Prof. Tamara Munzner(UBC), Budget: ca. 20k € — 2019

TU Graz & TU Darmstadt – Collaborative Exchange of Excellence: Prof. Schreck and Dr. Bernard. Funded by TU Graz (Austria) and TU Darmstadt (GER), Budget: ca. 10k € — 2018

VISSECT – Visual-Interactive Segmentation and Labeling of Multivariate Time Series. DFG-DACH Project No. I 2850. Deutsche Forschungsgemeinschaft, GER, Budget: ca. 742k € — 2016 – 2019

Progether – Your Prostate Cancer Network. Patient-centered Health Platform. Industry project funded by Progether, Oslo, NOR, Budget: ca. 30k € — 2015 – 2016

UKE II – Visual-Interactive Stratification of Patient Cohorts. Industrial research project funded by Universitätsklinikum Hamburg Eppendorf (UKE), GER, Budget: ca. 60k € — 2015 – 2016

UKE I – Visual-Interactive Analysis of Cancer Patient Histories. Industrial research project funded by Universitätsklinikum Hamburg Eppendorf (UKE), GER, Budget: ca. 60k € — 2013 – 2014

BT – Telecommunication Network and Big Data Analysis. Industrial research project funded by British Telecom (BT), Ipswich, UK, Budget: ca. 30k € — 2013 – 2015

VisInfo – Visual Access to Research Data. Leibnitz Gemeinschaft, GER. Funded by WGL Leibniz Foundation, GER, Budget: ca. 600k € — 2010 – 2012

Collaborative Research Projects without my Grants

Uber – Collaborative research project with Uber: Zipeng Liu and Prof. Tamara Munzner (both UBC), Yang Wang and Chris Chen (both Uber) — 2019 – 2021

VIAL – Visual-Interactive Labeling: Prof. Michael Sedlmair (University of Stuttgart), Germany, Dr. Matthias Zeppelzauer (University St. Pölten, Austria), Marco Hutter, Prof. Tamara Munzner (UBC) — 2017 – 2020

University of Konstanz & TU Darmstadt – Research Collaboration: Prof. D. Keim (Konstanz) and Prof. D. Fellner (Darmstadt). Funded by University of Konstanz and TU Darmstadt — 2018

UKE IV – Visual-interactive analysis of patient data related to the prostate cancer disease. Industrial research project funded by Universitätsklinikum Hamburg Eppendorf (UKE), Germany — 2016

EUCommunity – Data visualization meets policy making. An initiative of the European Commission. European Community EU — 2014 – 2015

EnBW – Service and Power Network Analysis. Industrial research project funded by Energie Baden-Württemberg (EnBW), Germany — 2013 – 2015

NOMAD – Policy Formulation and Validation through non-moderated Crowdsourcing. Co-funded by the EC under the FP7 Programme, European Community EU — 2012 – 2014

ePolicy – Engineering the POlicy-making LIfe CYcle. FP7 STREP project funded under the Information and Communication Technologies (ICT) theme, European Community EU — 2012 – 2014

PROBADO – Digital library services for non-textual documents. Leibnitz University Hannover (TIB), University of Bonn, Fraunhofer IGD, TU Graz, TU Braunschweig. Funded by DGF, Germany — 2009

Teaching

Table of teaching services, chronologically ordered and differentiated by event type, including lecture, exercise, practicum, project, and seminar. Student numbers for large classes are rounded, * indicates a prediction.

Event Type	Event Name	Students	Year
Lecture	Data Science and Machine Learning (Certificate of Adv. Studies)	16	SS 2022
Seminar	Interactive Visual Data Analysis	22	SS 2022
Seminar	Interactive Data Science in Digital Health	20	SS 2022
Lecture	Interactive Visual Data Analysis	110	WS 2021/2022
Seminar	Fundamentals of People-Oriented Computing	6	WS 2021/2022
Project	Visual Analysis of Large Event Sequences	5	WS 2021/2022
Seminar	Interactive Visual Data Analysis	21	SS 2021
Seminar	Creating Evidence in Digital and Mobile Health	17	SS 2021
Project	Visual Analysis of Large Event Sequences	2	WS 2020/2021
Exercise	Information Visualization and Visual Analytics	30	WS 2018/2019
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	1	WS 2018/2019
Lecture	User-Centered Design in Visual Computing	80	SS 2018
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	1	SS 2018
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	3	WS 2017/2018
Lecture	User-Centered Design in Visual Computing	100	SS 2017
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	2	SS 2017
Exercise	Information Visualization and Visual Analytics	1	WS 2016/2017
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	2	WS 2016/2017
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	2	SS 2016
Seminar	Visual Analytics: Interactive Visualization of Very Large Data	1	SS 2016
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	2	WS 2015/2016
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	4	SS 2015
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	2	WS 2014/2015
Seminar	Visual Analytics: Interactive Visualization of Very Large Data	1	SS 2014
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	1	WS 2013/2014
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	1	SS 2013
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	1	SS 2012
Seminar	Visual Analytics: Interactive Visualization of Very Large Data	3	SS 2012
Exercise	Information Visualization and Visual Analytics	30	WS 2011/2012
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	1	SS 2011
Seminar	Visual Analytics: Interactive Visualization of Very Large Data	1	SS 2011
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	2	WS 2011/2012
Practicum	Visual Computing Lab / Advanced Visual Computing Lab	1	WS 2010/2011
Seminar	Visual Analytics: Interactive Visualization of Very Large Data	1	WS 2010/2011

Student Supervision

Student supervision is structured by the type of supervision, consisting of theses, practicum & student projects, seminar, and student workers. All student projects have in common that students were individually supervised by myself, for a semester/term or longer. The ★ icon classifies student projects which led to a publication including student participation. Some student collaborations even yielded multiple publications, which is not included here.

Master and Bachelor Theses

Andrea Meier Master Thesis	**User-Based Formalization of Heterogeneous Text Documents through Interactive Clustering and Data Labeling**		2022
Maximilian Tornov Master Thesis	**Interactive Visual Item-Based Item Ranking**		2022
Yasara Peiris Master Thesis	**An Observational Study to Abstract Tasks for Event Sequence Analysis**		2022
Raphael Beckmann Master Thesis	**Visual Interfaces for Data and Model Properties**	★	2022
Yves Rutishauser Master Thesis	**Visual Analytics for Multiple Sclerosis**		2021
Jenny Schmid Master Thesis	**Human-Centered Ranking of Data Objects with Interactive Attribute Scoring Interfaces**	★	2021
Markus Lehmann Master Thesis	**Combining Strategies For an Enhanced Data Labeling Process**	★	2019
Heiko Reinemuth Master Thesis	**Visual-Interactive Segmentation and Labeling of Multivariate Time Series**		2019
Maximilian Müller Master Thesis	**Visual Comparison of Electronic Health Records**		2018
Christian Ritter Bachelor Thesis	**Personalized Music Classification and Feature Creation based on Visual-Interactive Learning**	★	2017
David Sessler Master Thesis	**Visual-Interactive Learning of Time Series Similarity**		2017
Eduard Dobermann Master Thesis	**Development of a EEG-Based Serious Game to Enhance User Concentration**	★	2017
David Sessler Bachelor Thesis	**User-centered Interactive Similarity Definition for Complex Objects**	★	2014
Alex Ulmer Master Thesis	**Visuelle Analyse Multidimensionaler Optimierungsprobleme**	★	2013

Practicum, Master Projects, and Independent Studies

Didem Durukan	A User Study on Data Ranking Ground Truth Data	2022
Clara-Marina Barth	A User Study on the Creation of Data Rankings	2022
Simon Hurwitz	A Literature Review on Process Analytics Systems	2022
Andrea Meier	Visual Analysis of Large Event Sequences	2021

Eduard Čuba	Visual Analysis of Large Event Sequences		2021
Yasara Peiris	Visual Analysis of Large Event Sequences		2021
Kevin Streiter	Visual Analysis of Large Event Sequences		2021
Clara-Marina Barth	Visual Analysis of Large Event Sequences		2021
Dominique Hässig	Visualization and Interaction Design Methods		2021
Philipp Schader	Visual-Interactive Optimization of 2D Data Layouts	★	2018
Markus Lehmann	Visual Analysis of Strategies for User-Centered Active Learning	★	2017
Martin Müller	Visual Analysis of Strategies for User-Centered Active Learning	★	2017
Maximilian Müller	Visual Comparison of Patient Event Sequences		2017
Heiko Reinemuth	Visual-Interactive Preprocessing of Multivariate Time Series Data	★	2017
Hendrik Pfeifer	Visual-Interactive Preprocessing of Multivariate Time Series Data	★	2017
Faris Abraha	Combining Cluster Analysis and Outlier Analysis		2016
Simon Schimmels	Combining Cluster Analysis and Outlier Analysis		2016
Hendrik L.-Tieke	A Web Based Evaluation System	★	2016
Benedict Jahn	An Overlay-based Visualization for Multiple Patient Histories		2016
David Sessler	A Visual Active Learning System for the Assessment of Patient Well-being	★	2015
Aaron Hochländer	Mitigating Overplotting Effects in Populated Scatterplot Visualizations		2015
Lukas Graner	Mitigating Overplotting Effects in Populated Scatterplot Visualizations		2015
Christian Ritter	A Visual-Interactive Learning System for the Similarity of Soccer Players	★	2015
Robert Heimbach	A Visual-Interactive Faceted Search System for Notebooks		2015
Eduard Dobermann	Visual-Interactive Segmentation of Multivariate Time Series	★	2015
Benedict Jahn	Visual-Interactive Analysis of Electronic Health Care Records		2015
Saskia Koldijk	Visual Analytics of Work Behavior Data-Insights on Individual Differences	★	2014
Peter Sheldrik	Timebox Widgets for Interactive Time Series Querying		2014
Tobias Stoll	Exploratory Literature Search		2013
Oliver Goroll	Visual-Interactive Time Series Preprocessing	★	2012
Alex Ulmer	Time Series Analysis in the Web	★	2012
Nils Wilhelm	Visual Analysis of Multivariate Time Series (Human Motion Capture Data)	★	2011
Jan Riemann	Implementation of a Symbolic Time Series Descriptor		2010
Martin Weigel	Implementation of a Symbolic Time Series Descriptor		2010
Michael Stoica	Implementation of a Symbolic Time Series Descriptor		2010

Student Workers

Shreedhar Govil	Visual Access to Finance Data		2022
Madhav Sachdeva	A Framework for Item Rankings	★	2022
Clara-Maria Barth	Visual Analysis of Event Sequence Data		2022
Jenny Schmid	Interactive Creation of Item Rankings	★	2021
Cristian-Ioan Blaga	VIAL4MVTS: Interactive Labeling of Multivariate Time Series	★	2021
Vincent Jung	Interactive Data Labeling for Companies and Stock Chart Data		2021
Raphael Beckmann	Property Measures for Data Labeling	★	2021
Christian Ritter	VIAL: Visual-InterActive Labeling	★	2016
Marco Hutter	VIAL: Visual-InterActive Labeling (Developer and Scientific Researcher)	★	2016
Eduard Dobermann	Visual-Interactive Labeling of Human Motion Capture Data	★	2016
David Sessler	Visual-Interactive Similarity Search	★	2016
Alex Brakowski	VA-Server: A Visual Analytics Client-Server Architecture		2016
Florian Ammon	A Visual-Interactive Query Interface for Faceted Search		2016
Habib Saissi	Visual Access to Time-Oriented Primary Data		2016
Annika Beißler	Discrete Fourier Transform and Haar Wavelet Transform		2016
Abdulghani Alshadadi	A SQL Database for Time Series Data		2016

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Prof. Heidrun Schumann	University of Rostock, GER
Prof. Silvia Miksch	TU Vienna, AUT
Prof. Daniel Keim	University of Konstanz, GER
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Prof. Michael Sedlmair	University of Stuttgart, GER
Prof. Roy Ruddle	University of Leeds, UK
Prof. Viktor von Wyl	University of Zurich, CH
Prof. Ben Shneiderman	University of Maryland, MA, US

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Dr. Maximilian Scherer	TU Darmstadt, GER

Attended Scientific Conferences

VIS/VAST IEEE	**Conference on Visualization / Visual Analytics Science and Technology** 2010, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021
EuroVis EG/VGTC	**Conference on Visualization, Short Paper Track** 2009, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021
EuroVA EG	**EuroVis Workshop on Visual Analytics** 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021
VAHC IEEE/ACM	**VIS Workshop on Visual Analytics in Health Care** 2013, 2015, 2017, 2019, 2021
BELIV IEEE	**VIS Workshop on Evaluation and Beyond - Methodological Approaches for Visualization** 2018, 2019
VISxAI IEEE	**VIS Workshop on Visualization for AI Explainability** 2018, 2019
VDA SPIE	**Conference on Visualization and Data Analysis, San Francisco, CA, USA** 2011, 2015, 2017
SegVis IEEE	**Workshop on Temporal & Sequential Event Analysis, Baltimore, MA, USA** 2016
Eurographics EG	**Conference of the European Association for Computer Graphics** 2017
HLF	**Heidelberg Laureate Forum, Heidelberg, Germany** 2016
GYSS	**Global Young Researchs Summit (GYSS), Singapore, Singapore** 2016
VMV EG	**International Symposium on Vision, Modeling, and Visualization** 2018, 2021
IVAPP EG VISIGRAPP	**Information Visualization Theory and Applications** 2017
AI BCS	**Workshop on Artificial Intelligence, Cambridge, United Kingdom** 2013, 2015
JCDL ACM/IEEE	**Joint Conference on Digital Libraries, Washington, DC, USA** 2012
SIGRAD EG	**Swedish Chapter of Eurographics, Vaxjö, Sweden** 2012
TAVA ACM	**i-Know – Knowledge Management and Knowledge Technologies, Graz, Austria** 2012
WSCG EG	**Computer Graphics, Visualization and Computer Vision, Plzen, Czech Republic** 2012
TPDL Springer	**Theory and Practice in Digital Libraries, Berlin, Germany** 2011
ECDL Springer	**European Conference on Digital Libraries, Glasgow, Scotland** 2010