# **Curriculum Vitae**

## Prof. Dr. Henrik Leopold

Name: Henrik Leopold
Date of Birth: 24/05/1986
Place of Birth: Leipzig, Germany

Marital Status: Married to Franziska Leopold

Children: Jona Milian, 3 years

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Web: www.henrikleopold.com



#### **EDUCATION**

01/2011 Ph.D. in Information Systems

⇒ 07/2013 Thesis title: "Natural Language in Business Process Models"

Humboldt University of Berlin

Advisor: Prof. Dr. Jan Mendling (WU Vienna) Degree: Dr. rer. pol. (summa cum laude)

10/2008 Study of Information Systems

⇒ 10/2010 Humboldt University of Berlin

Title of Master Thesis: "Modularization of Process Models Using Natural

Language Techniques" Degree: Master of Science

10/2005 Study of Information Systems

⇒ 09/2008 Berlin School of Economics and Law (Dual study program)

Degree: Bachelor of Science

08/1998 **High School** 

⇒ 07/2005 Max-Reinhardt-Gymnasium, Berlin

Degree: Abitur (High School Diploma)

#### **APPOINTMENTS**

06/2020 Associate Professor (with tenure)

⇒ today Kühne Logistics University

Area: Data Science and Business Intelligence

02/2019 Senior Researcher

⇒ today Hasso Plattner Institute, University Potsdam

Associated group: Business Process Technology (Prof. Dr. Mathias Weske)

02/2019 Assistant Professor

⇒ 06/2020 Kühne Logistics University

Area: Data Science and Business Intelligence

02/2015 Assistant Professor

⇒ 01/2019 VU Amsterdam, Amsterdam, The Netherlands

Department of Computer Science

04/2014 Assistant Professor

⇒ 01/2015 WU Vienna, Vienna, Austria

Institute for Information Business

01/2011 Research Assistant

⇒ 01/2015 Humboldt University of Berlin, Berlin, Germany

Institute of Information Systems

10/2005 Student Employee

⇒ 12/2010 Bayer Healthcare AG, Berlin, Germany

#### TEN MOST IMPORTANT PUBLICATIONS

The list below contains the ten most important publications ordered by year. PDF copies of all publications are available at <a href="https://www.henrikleopold.com">www.henrikleopold.com</a>.

- 1. H. van der Aa, A. Rebmann, and H. Leopold. Natural language-based detection of semantic execution anomalies in event logs. *Information Systems*, 102:101824, 2021.
- 2. H. van der Aa, H. Leopold, and M. Weidlich. Partial order resolution of event logs for process conformance checking. *Decision Support Systems*, 136, 2020.
- 3. H. van der Aa, H. Leopold, and H. Reijers. Efficient process conformance checking on the basis of uncertain event-to-activity mappings. *IEEE Transactions on Knowledge and Data Engineering*, 32(5):927 940, 2020.
- 4. C. Meilicke, H. Leopold, E. Kuss, H. Stuckenschmidt, and H. A. Reijers. Overcoming individual process model matcher weaknesses using ensemble matching. *Decision Support Systems*, 100:15–26, 2017.
- 5. H. van der Aa, H. Leopold, and H. A. Reijers. Comparing textual descriptions to process models the automatic detection of inconsistencies. *Information Systems*, 2016.
- 6. F. Pittke, H. Leopold, and J. Mendling. Automatic detection and resolution of lexical ambiguity in process models. *IEEE Transactions on Software Engineering*, 41(6):526–544, 2015.
- 7. H. Leopold, J. Mendling, and A. Polyvyanyy. Supporting process model validation through natural language generation. *IEEE Transactions on Software Engineering*, 40(8):818–840, 2014.
- 8. H. Leopold, R.-H. Eid-Sabbagh, J. Mendling, L. G. Azevedo, and F. A. Baião. Detection of naming convention violations in process models for different languages. *Decision Support Systems*, 56:310–325, 2013.
- 9. H. Leopold, S. Smirnov, and J. Mendling. On the refactoring of activity labels in business process models. *Information Systems*, 37(5):443–459, 2012.
- 10. H. Leopold, M. Niepert, M. Weidlich, J. Mendling, R. Dijkman, and H. Stuckenschmidt. Probabilistic optimization of semantic process model matching. In *International Conference on Business Process Management*, pages 319–334. Springer, 2012.

## **AWARDS**

2017	Runner-up best paper award at CAiSE 2017  Awarded for our paper "Checking process compliance on the basis of uncertain event-to-activity mappings".
2014	<b>TARGION Dissertation Award (10,000 €)</b> Awarded for the best dissertation in the area of strategic information management and digitalization.
2013	Runner-up of the McKinsey Technology Award (3,000 €) Awarded for my research on natural language generation from business process models.

## **INVITED TALKS**

05/2021	Leuphania University of Lüneburg Detecting Excecution Anomalies in Event Logs Using Natural Language Processing
01/2020	Kiel University, Germany Automatically Identifying Automation Candidates
05/2018	WU Vienna, Austria Evidence-Based Conformance Checking for Event Logs with Coarse-grained Timestamps
07/2017	WU Vienna, Austria Checking Process Compliance on the Basis of Uncertain Event-to-Activity Mappings
11/2017	Wageningen University, The Netherlands Natural Language Processing in Process Modelling: The Present and the Future
10/2017	ING Bank, Amsterdam, The Netherlands Process Mining for Automated Compliance Checking
04/2016	ICT4V, Montevideo, Uruguay Natural Language Generation from Process Models
09/2015	University of Havana, Cuba Business Process Management in Research and Practice
11/2014	Goethe University Frankfurt, Germany Generation of Natural Language Texts from Business Process Models

01/2013	Technion - Israel Institute of Technology, Haifa, Israel Natural Language Analysis in Business Process Models
04/2012	UNIRIO, Rio de Janeiro, Brazil Textual Analysis of Activity Labels of Business Process Models

### **RESEARCH VISITS**

09/2014 ⇒ 11/2014	University of Mannheim, Mannheim, Germany Chair of Artificial Intelligence Work on process model matching Invited and funded by the University of Mannheim
03/2012 ⇒ 04/2012	UNIRIO, Rio de Janeiro, Brazil Department of Applied Informatics Work on Multi-lingual detection of process model guideline violations Funded by the German Academic Exchange Service (DAAD)
04/2010 ⇒ 07/2010	<b>Technical University of Eindhoven, Eindhoven, The Netherlands</b> School of Industrial Engineering, Information Systems Preparation of Master Thesis

## **TEACHING EXPERIENCE**

### **LIST OF TAUGHT COURSES**

2021	Data Preparation and Integration Lecture and tutorial, Bachelor, Kühne Logistics University	$\sim$ 15 participants
2021	<b>Data Science</b> Lecture and tutorial, Master, Kühne Logistics University	$\sim$ 60 participants
2020	Process Mining Lecture, Master, Hasso Plattner Institute	$\sim$ 15 participants
2020	Data Preparation and Integration Lecture and tutorial, Bachelor, Kühne Logistics University	$\sim$ 15 participants
2020	Data Science Lecture and tutorial, Master, Kühne Logistics University	$\sim$ 40 participants
2019	Process Mining Lecture, Master, Hasso Plattner Institute	$\sim$ 15 participants

2019	Progamming with Python Lecture and tutorial, Bachelor, Kühne Logistics University	$\sim$ 15 participants
2019	Data Management Lecture and tutorial, Bachelor, Kühne Logistics University	$\sim$ 15 participants
2018	Business Modeling and Requirements Engineering Lecture and tutorial, Bachelor, VU Amsterdam	$\sim$ 100 participants
2018	Business Process Analytics Lecture and tutorial, Master, VU Amsterdam	$\sim$ 150 participants
2017	Business Modeling and Requirements Engineering Lecture and tutorial, Bachelor, VU Amsterdam	$\sim$ 100 participants
2017	Business Process Analytics Lecture and tutorial, Master, VU Amsterdam	$\sim$ 130 participants
2017	Process Management Lecture and tutorial, Master, University of Mannheim	$\sim$ 100 participants
2016	Business Process Analytics Lecture and tutorial, Master, VU Amsterdam	$\sim$ 100 participants
2015	Introduction to Multimedia, Information and Management Seminar, Bachelor, VU Amsterdam	$\sim$ 15 participants
2015	Academic English Seminar, Bachelor, VU Amsterdam	$\sim$ 15 participants
2015	Information Management Lecture and tutorial, Bachelor, VU Amsterdam	$\sim$ 120 participants
2015	Business Process Management and IT Strategy Lecture and tutorial, Master, University of Havana	$\sim$ 25 participants
2014		40 mantiainanta
	Business Information Systems II Lecture and tutorial, Bachelor, WU Vienna	$\sim$ 40 participants
2014		$\sim$ 40 participants $\sim$ 40 participants

2013	Advanced BPM and Enterprise Systems Lecture, Master, Humboldt University of Berlin	$\sim$ 60 participants
2013	Information Systems I (Wirtschaftsinformatik I) Lecture and tutorial, Bachelor, Humboldt University of Berlin	$\sim$ 250 participants
2013	Advanced Information Systems Seminar, Master, Humboldt University of Berlin"	$\sim$ 15 participants
2013	Foundations of BPM and Enterprise Systems Lecture, Bachelor, Humboldt University of Berlin	$\sim$ 50 participants
2013	Advanced BPM and and Enterprise Systems Seminar, Master, Humboldt University of Berlin	$\sim$ 15 participants
2012	Advanced BPM and Enterprise Systems Lecture, Bachelor, Humboldt University of Berlin	$\sim$ 60 participants
2012	Information Systems I (Wirtschaftsinformatik I) Lecture and tutorial, Bachelor, Humboldt University of Berlin	~250 participants
2012	<b>Advanced Information Systems</b> Seminar, Master, Humboldt University of Berlin	$\sim$ 25 participants
2012	Foundations of BPM and Enterprise Systems Lecture, Bachelor, Humboldt University of Berlin	$\sim$ 50 participants
2012	Advanced BPM and and Enterprise Systems Seminar, Master, Humboldt University of Berlin	$\sim$ 15 participants
2011	<b>Advanced Information Systems</b> Seminar, Master, Humboldt University of Berlin	$\sim$ 25 participants

## **ACQUISITION OF THIRD-PARTY FUNDS**

09/2021 ⇒ 08/2024	Grant from German Research Foundation (DFG) Project title: Automated Process Weakness Identification based on Social Media Posts Role: Main applicant and principal investigator 276,700 €
02/2019 ⇒ 02/2023	Grant from Dutch Research Council (NWO)  Project title: Automatic Derivation of Event Logs (AutoDrive)  Call: Open Technology Program  Role: Main applicant and principal investigator  259,176 €

01/2018 Grant from Dutch Research Council (NWO)

⇒ 01/2022 Project title: Techniques for the Analysis of Client-Team Interactions

(TACTICS)

Call: C2D Data Science for Evolving Data Role: Co-applicant and PhD advisor

**443,268** € (total project volume: 744,094) €

08/2015 Grant from Dutch Research Council (NWO)

⇒ 08/2016 Project title: Software for the Analysis of Dental Implant Quality (SADIQ)

Call: Innovative public private partnership in ICT - Knowledge innovation

mapping (IPPSI-KIEM)

Role: Main applicant and principal investigator

78,879 €

07/2014 Project with UniCredit Bank Austria AG

⇒ 01/2015 Project title: Automatic identification of service candidates in process model

repositories

Type: Direct industry funding

Role: Main applicant and principal investigator

20,000 €

01/2015 Grant from European Union

 $\Rightarrow$  01/2019 Project title: RISE\_BPM

Call: European Union's Horizon 2020 research and innovation programme -

Marie Skłodowska-Curie Research and Innovation Staff Exchange

Role: Co-applicant

**324,000** € (total project volume: 1,273,500 €)

07/2014 Project with Signavio GmbH

 $\Rightarrow$  01/2015 Project title: Automatic quality assurance of process models

Type: Direct industry funding

Role: Main applicant and principal investigator

4,000 €

03/2012 Scholarship from German Academic Exchange Institution (DAAD)

⇒ 04/2012 Project title: Linguistic Analysis of Process Models

Purpose: Research visit to the Federal University of the State of Rio de

Janeiro

My Role: Main applicant and principal investigator

2,500 €

<u>Total amount</u> 1,408,523 €

### **SCIENTIFIC SERVICE**

### **EDITORIAL APPOINTMENTS**

Since 02/2017 Associate Editor

Business & Information Systems Engineering (BISE)

### **CHAIRING AND ORGANIZATION**

2022	PC Chair International Workshop on Enterprise Modeling and Information Systems Architectures (EMISA 2022)
2022	Mini Track Chair Hawaii International Conference on System Sciences (HICSS 2022) Mini Track: Business Process Technology
2020	Track Chair International Conference on Wirtschaftsinformatik (WI 2020) Track: Digital Processes and Architectures
2019	Track Chair European Conference on Information Systems (ECIS 2019) Track: Modelling and Managing the Digital Enterprise and its Business Processes
2017	<b>Demo Chair</b> International Conference on Business Process Management (BPM 2017)
2017	Program Co-Chair International Workshop on Process Querying (PQ 2017)
2016	Program Co-Chair Workshop on Business Process Management and Ontologies (BPMO 2016)
2015	Contest Chair Process Model Matching Contest (PMMC 2015)
2015	Program Co-Chair International Workshop on Enterprise Modelling and Information Systems Architectures (EMISA 2015)
2015	Publicity Chair International Conference on Business Process Management (BPM 2015)
2013	Contest Chair Process Model Matching Contest (PMMC 2013)

### **REVIEWER FOR JOURNALS**

CSUR	ACM Computing Surveys
TMIS	ACM Transactions on Management Information Systems
BPMJ	Business Process Management Journal
ComInd	Computers in Industry
DKE	Data & Knowledge Engineering
DSS	Decision Support Systems
FGCS	Future Generation Computer Systems
TSC	IEEE Transactions on Services Computing
TSE	IEEE Transactions on Software Engineering
IPL	Information Processing Letters
IS	Information Systems
JSS	Journal of Systems and Software
JODS	Journal on Data Semantics
SoSyM	Software and Systems Modeling

### PROGRAM COMMITTEE (CONFERENCES)

$2019 \Rightarrow today$	ICPM	International Conference on Process Mining
$2017 \Rightarrow today$	CAiSE	International Conference on Advanced Information Systems Engineering
$2015 \Rightarrow today$	BPM	International Conference on Business Process Management
$2016 \Rightarrow 2020$	EDOC	IEEE Enterprise Computing Conference
2015 ⇒ 2020	ICSOC	International Conference on Service Oriented Computing

## PROGRAM COMMITTEE (WORKSHOPS, DEMO TRACKS, AND PHD TRACKS)

2021	BPMDS	Business Process Modeling, Development and Support
2020	IntelLanG	ECAI Workshop on Intelligent Information Processing and Natural Language Generation
2020	<b>BPM Cases</b>	BPM Cases Collection
2020	BPMDS	Business Process Modeling, Development and Support
2020	EMISA	International Workshop on Enterprise Modeling and Information Systems Architectures
2019	GPNP	GP Nachwuchspreis
2018	AMMoRe	International Workshop on Analytics and Mining of Model Repositories
2018	AI4BPM	Artificial Intelligence for Business Process Management
2018	BDA	International Workshop on Business Data Analytics
2018	AMMoRe	Workshop on Analytics and Mining of Model Repositories

2017	CBPM	Workshop on Cognitive Business Process Management
$2016 \Rightarrow today$	PQ	International Workshop on Process Querying
2016	ModTools	Workshop on Methodical Development of Modeling Tools
2015	ProMoS	International Workshop on Process Modelling Support Systems
2014	ICSOC	PhD Symposium of ICSOC
$2014 \Rightarrow 2015$	EDOC	Demo Track of IEEE EDOC
$2013 \Rightarrow today$	ZEUS	European Workshop on Services and their Composition
2013	BSC	International Business and System Conference
2013	BPD	International Workshop on Business Process Design
2012	BPMN	International Workshop on the Business Process Model and Notation
$2012 \Rightarrow 2016$	BPM	Demo Track of BPM

## **REVIEWER FOR CONFERENCES**

2017	DESRIST	International Conference on Design Science Research in Information Systems and Technologies
$2016 \Rightarrow 2018$	ICIS	International Conference on Information Systems
2015	HICSS	Hawaii International Conference on System Sciences
2015	Informatik	Annual Meeting of the Society for Computer Science
2015	ER	International Conference on Conceptual Modeling
$\textbf{2013} \Rightarrow \textbf{2017}$	ECIS	European Conference on Information Systems
$2013 \Rightarrow today$	WI	International Conference on Wirtschaftsinformatik
2012 ⇒ 2016	CAiSE	International Conference on Advanced Information Systems Engineering
$\textbf{2012} \Rightarrow \textbf{2014}$	CoopIS	International Conference on Cooperative Information Systems
2011	BPMN	International Workshop on the Business Process Model and Notation

### **REVIEWER FOR FUNDING AGENCIES**

2021	DFG	German Resarch Foundation
2021	ANID	National Research and Development Agency - Chile
2017	FWO	Research Foundation – Flanders
2016, 2017	ARRS	Slovenian Research Agency

#### **OUTREACH**

I believe in the benefits of cooperating with industry. It is a great opportunity for both transferring research insights and discovering new research problems. I initiated industry research projects with

- Artiliance BV, Utrecht, The Netherlands
- Bank Austria AG, Vienna, Austria
- DNB (Dutch Central Bank), Amsterdam, The Netherlands
- ING Bank, Amsterdam, The Netherlands
- Lana Labs GmbH, Berlin, Germany
- LunetZorg, Eindhoven, The Netherlands
- KNMT (Royal Dutch Dental Association), Utrecht, The Netherlands
- Precedence BV, Maastricht, The Netherlands
- Signavio GmbH, Berlin, Germany
- UWV (Employee Insurance Agency), Amsterdam, The Netherlands

I am also co-founder and former chief scientist of the startup company ACCHA<sup>1</sup>, which provides a platform for managing software requirements based on artificial intelligence techniques.

#### **LANGUAGES**

- German (native)
- English (fluent in reading, writing, and speaking)
- Dutch (conversational)
- Spanish (basic)

#### **PROFESSIONAL MEMBERSHIPS**

- German Informatics Society (GI)
- Association of Information Systems (AIS)
- IEEE Task Force on Process Mining

<sup>1</sup>https://accha.nl/