

Madelon Hulsebos

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I am interested in **Intelligent Data Systems**. So far, my research has been on **learned table representations** and their **applications** like data preparation, search, and analysis.

EDUCATION

University of Amsterdam – Amsterdam, Netherlands

PhD Computer Science

Sep 2020 – Feb 2023 (expected)

Delft University of Technology – Delft, Netherlands

MSc Computer Science

Sep 2016 – July 2018

BSc Technology, Policy and Management

Sep 2011 – July 2015

ACADEMIC EXPERIENCE

University of Amsterdam – Amsterdam, Netherlands

PhD Researcher, INDE Lab

Sep 2020 – Feb 2023 (expected)

- Advised by Prof. Paul Groth and co-advised by Çağatay Demiralp (industry).
- Proposed an agenda around methods and datasets for inferring table semantics and applications thereof in practice.

Massachusetts Institute of Technology – Cambridge, United States

Visiting Collaborator, MIT Media Lab

Aug 2018 – March 2019

- Led and maintained a research project on semantic table understanding.
- Contributed to a data visualisation training and benchmarking dataset.

INDUSTRY EXPERIENCE

Sigma Computing – San Francisco, United States

PhD Student Researcher, previously Research Intern (Summer 2021)

2021 – present

- Developing systems for deploying table understanding models, and applications like data preparation and search.
- Contributing to an interactive data science tool (Decision Studio), mainly backend design and analyses.
- Publishing and presenting the outcomes of my work at scientific conferences, e.g. CIDR '22.

KPN, HEINEKEN – Rotterdam/Amsterdam, Netherlands

Data Scientist

2019 – 2021

- Developed and integrated an ML system for financial forecasting that produced more accurate forecasts.
- Built two ML tools for evaluating marketing campaigns based on causal inference and Bayesian modelling.
- Gave talks e.g. on data validation and transfer learning, initiated a reading group, mentored junior data scientists.

TEACHING EXPERIENCE

Delft Institute of Technology – Delft, Netherlands

Graduate Teaching Assistant, Pattern Recognition & Web Information Systems groups

2017 – 2018

- TA for the MSc courses: Pattern Recognition (IN4085), Web Science & Engineering (IN4252).
- Supported 250+ graduate students throughout projects and lab sessions.
- Evaluated student assignments, projects and presentations.

Aalto University – Helsinki, Finland

Research and Teaching Assistant, Machine Learning for Big Data

2017

- Developed assignments for the BSc course “Machine Learning: Basic Principles” (CSE3210) with 500+ students.
- Conducted experiments for semi-supervised learning over networks and presented the work at ICASSP.

ACADEMIC SERVICE

Program committee, EDBT (Industry track)	2022
Program committee, WWW (Industry track)	2022
Program committee, ESWC (Posters & Demos)	2022
Reviewer, NeurIPS (Datasets & Benchmarks track)	2021
Co-organizer, SemTab challenge	2021, 2022

SELECTED PUBLICATIONS

GitSchemas: A Dataset for Automating Relational Data Preparation Tasks, DBML@ICDE, 2022.

Döhmen, T., Hulsebos, M., Beecks, C., Schelter, S.

Making Table Understanding Work in Practice [abstract], CIDR, 2022.

Hulsebos, M., Gathani, S., Gale, J., Dillig, I., Groth, P., Demiralp, C.

Augmenting Decision Making via Interactive What-If Analysis, CIDR, 2022.

Gathani, S., Hulsebos, M., Gale, J., Haas, P. J., Demiralp, C.

GitTables: A Large-Scale Corpus of Relational Tables, under review, 2021.

Hulsebos, M., Demiralp, C., Groth, P.

Sato: Contextual semantic type detection in tables, PVLDB, 2020.

Zhang, D., Suhara, Y., Li, J., Hulsebos, M., Demiralp, C., Tan, W.

Sherlock: A deep learning approach to semantic data type detection, SIGKDD, 2019.

Hulsebos, M., Hu, K., Bakker, M., Zraggen, E., Satyanarayan, A., Kraska, T., Demiralp, C., Hidalgo, C.

VizNet: Towards a large-scale visualisation learning and benchmarking repository, CHI, 2019.

Hu, K., Gaikwad, N., Hulsebos, M., Bakker, M., Zraggen, E., Hidalgo, C., Kraska, T., Li, G., Satyanarayan, A., Demiralp, C.

BOARD MEMBERSHIP

UniPartners Delft – Delft, Netherlands

Supervisory Board Member

2017 – present

- Supervise the financial and strategic positions of the company.
- Implement structured financial control, KPI oriented leadership and a supervision cycle.

Executive Board Member

2015 – 2016

- Controlled and optimised the quality of internal and external products and processes.
- Daily management of projects, contributing to a revenue of over €100 K.
- Moderated the CRM system (Salesforce) and trained 10+ boards.