

Madelon Hulsebos

Amsterdam, Netherlands | madelon.hulsebos@gmail.com | madelonhulsebos.github.io

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 – May 2023 (expected)

Delft University of Technology – Delft, Netherlands
MSc Computer Science
BSc Technology, Policy and Management

Sep 2016 – July 2018

Sep 2011 – July 2015

ACADEMIC EXPERIENCE

University of Amsterdam – Amsterdam, Netherlands
PhD Researcher, INDE Lab

Sep 2020 – May 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.

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

Assistant Editor, Journal of Systems Research (jsys)	2022 - present
Co-organizer, Table Representation Learning workshop @ NeurIPS	2022
Co-organizer, SemTab challenge @ ISWC	2021, 2022
Reviewer, NeurIPS (Datasets & Benchmarks track)	2021, 2022
Program Committee, AIDB @ VLDB	2022
Program Committee, EDBT (Industry track)	2022
Program Committee, WWW (Industry track)	2022
Program Committee, ESWC (Posters & Demos)	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, SIGMOD, 2023.

[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.

INVITED TALKS

Towards “Large Table Models” for enterprise data management, KomPAKI seminar, TU Darmstadt,	June 2022
GitTables: a large corpus of relational tables, Database Architecture group CWI, Amsterdam, NL	Feb 2022
Keep The Data Flowing - Data Validation using Great Expectations, PyData, Amsterdam	Sep 2020

NOTABLE

VLDB Endowment Travel Award	2022
Honourable mention for GitTables in the SemTab challenge	2021

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.