

# DOU LIU

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📍 Groningen, Netherlands 📞 +31 626145186

## EDUCATION

### University of Twente, Enschede, Netherlands

Sep, 2019 - Dec, 2021

*Master of science in Computer Science. Specialized in Data Science & Technology.*

*Main interests: Machine Learning, Natural Language Processing, Knowledge Graph.*

*Favorite class: Research Experiments in Databases and Information Retrieval.*

### Xi'an Jiaotong University, Xi'an, China

Sep, 2015 - Jun, 2019

*Bachelor of science in Computer Science.*

*Siyuan scholarship for academic excellence.*

*Second prize in Mathematical Model Competition held by Xi'an Jiaotong University.*

## SKILLS

**Languages:** Advanced in Python, Skilled in R, SQL.

**Software & Tools:** Familiar with Github, Latex, Pycharm, R studio, Neo4j, Mongo DB.  
Experience with JIRA.

**Computer Science:** Skilled in Data Structure, Algorithm, Machine Learning, Natural Language Processing.

## WORK EXPERIENCE

### Elsevier B.V., Amsterdam, Netherlands

Nov, 2020 - Feb, 2021

*NLP Engineer Intern (full-time) at Mendeley team*

*Remote*

- Built a NLP pipeline for analyzing query logs of the search engine.
- Performed experiments on the topic of query suggestion based on Deep Learning algorithm (HRED).
- Presented the internship result with the stakeholder and finished an internship report.

### University of Groningen, Groningen, Netherlands

June, 2020 - Dec, 2021

*Research Assistant (part-time)*

- Programmed Python scripts for crawling on dynamic web and collected 200k Kickstarter projects to support research.
- Built a NLP pipeline for sentiment detection on unstructured data for further analysis.
- Performed data processing for research, e.g., merging data from different sources and constructing variables for statistical analysis.

## PROJECT AND RESEARCH EXPERIENCE

### Rewriting Fictional Texts Using Pivot Paraphrase Generation and Character Modification

Apr, 2020 - Apr, 2021

- Developed a NLP model for rewriting fictional texts to help the study of gender bias in text.
- Wrote a [paper](#) as the first author, and the paper was accepted by the International Conference on Text, Speech, and Dialogue (TSD 2021).
- Created a Python Flask based [web demo](#) ( [source code](#) is open access).

### Knowledge Driven Conversational Virtual Museum Guide

Apr, 2021 - Dec, 2021

- Built a knowledge graph based conversational agent in a virtual museum exhibition for Rembrandt House Museum.
- Empowered the agent using knowledge graph (KG) technologies, such as KG-based question answering and recommendation. The KG is maintained as a Neo4j database.
- The designed agent is nominated as one of the [top submissions](#) (50 out of 1000+) by Google Dialogflow Team.
- Created a [web demo](#) using Python Flask and WebGL ( [source code](#) for this project is available).
- A manuscript based on the project was submitted to the first international conference on Hybrid Human Artificial Intelligence (HHAI 2022) and now is under review.

### Recognizing Social Touch Gesture Machine Learning Project

Nov, 2020 - Jan, 2021

- Utilized social touch gesture data to implement a classifier and predict which gesture a touch data is.
- Designed an ensemble classifier of random forest and convolutional neural network (both 2D and 3D) for this task.
- Our weighted ensemble classifier outperformed previous implementations with the accuracy of 62.27.