

Yihong Liu

Technical University of Munich

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EDUCATION

- **Technical University of Munich** Munich, Germany
Programme: Data Engineering and Analytics Nov. 2019 – Present
 - **Degree:** Master of Science (M. Sc.), expected in Oct. 2021
 - **Overall Grade:** 1.5 / 1.0
 - **Core modules:** Foundations of Data Engineering/ Data Analysis, Applied Regression, Computational Statistics, Machine Learning, Introduction to Deep Learning, Natural Language Processing, Machine Learning in Graphs and Sequential Data
- **Southwest University** Chongqing, China
Major: Computer Science and Technology Sept. 2015 – Jul. 2019
 - **Degree:** Bachelor of Engineering (B. E.)
 - **Overall GPA:** 90.83 / 100
 - **Major GPA:** 96.08 / 100
 - **Ranking:** 2%
 - **Core modules:** Data Structure, Operating System, Computer Network, Computer Organisation, Database Systems, Analysis and Design of Algorithms, Data Mining and Artificial Intelligence

ACADEMIC ACTIVITIES

- **Master Thesis** Center for Information and Language Processing, LMU
Multilingual Machine Translation Using Normalizing Flows Apr. 2021 – Nov. 2021
 - **Supervisor:** Prof. Dr. Georg Groh and Prof. Dr. Hinrich Schuetze
 - **Advisor:** M. Sc. Haris Jabbar
 - **Description:** Research the possibility of using normalizing flows for unsupervised machine translation
- **Master Seminar** Data Analytics and Machine Learning Group, TUM
Selected Topics in Machine Learning Nov. 2020 – Feb. 2021
 - **Supervisor:** M. Sc. Bertrand Charpentier
 - **Lecturer:** Prof. Dr. Stephan Guennemann
 - **Major Work:** Did a comprehensive research on Bayesian Neural Networks (BNNs)
- **Guided Research** Social Computing Group, TUM
Using Label Information as Supervised Pretraining Guidance for Hate Speech Detection Apr. 2020 – Nov. 2020
 - **Supervisor:** Prof. Dr. Georg Groh
 - **Advisor:** M. Sc. Maximilian Wich
 - **Description:** Researched on using semantics of labels to improve the performance for hate speech detection
- **Master-Praktikum/Lab Course** Social Computing Group, TUM
Machine Learning for Natural Language Processing Apr. 2020 – Jul. 2020
 - **Supervisor:** Prof. Dr. Georg Groh
 - **Advisor:** M. Sc. Maximilian Wich
 - **Description:** Researched on multi-task learning architectures and methods for hate speech detection
 - **Main Work:** Implemented soft-parameter and hard-parameter sharing models
- **Supervisor's Weekly Seminar** Southwest University
Machine Learning and Deep Learning Sept. 2016 – Jun. 2019
 - **Role:** Member, then Organiser
 - **Main Work:** Organised the weekly seminar and shared basic Natural Language Processing techniques.
- **Undergraduate Science and Technology Innovation Funding Project** Southwest University
Vectorised Semantic Representations of Multi-lingual Short Texts Nov. 2017 – Nov. 2018
 - **Supervisor:** Xianchun Zou, associate professor

- **Role:** Host
- **Main Work:** Designed the neural network based method for learning sentence representations.

- **Academic Curriculum Design** Southwest University
Sentiment Analysis System *Feb. 2018 – Mar. 2018*
 - **Description:** Developed a website where the sentiment of a given short text can be judged.
 - **Main Work:** Designed the back-end machine learning algorithms of sentiment analysis.

PUBLICATION

- **Y. Liu et al (2020). A Label-Oriented Loss Function for Learning Sentence Representations. Computer Speech & Language, Volume 66, 101165. (<https://doi.org/10.1016/j.csl.2020.101165>)**

WORKING EXPERIENCE

- **Social Practice and Investigation in the Rural Areas of Chongqing** Chongqing, China
Leader and Participant *Jun. 2017 - Jul. 2017*
- **Spirit Cultural Exchange** South Dakota, USA
Hotel Receptionist and Laundry Shift Leader *Jun. 2016 - Sept. 2016*

HONOURS AND AWARDS

- **German National Scholarship (2019 – 2020)**
- **Outstanding Graduate of Southwest University (2019)**
- **Mathematical Contest In Modeling: Honourable Mention (2018)**
- **China National Scholarship (2017 – 2018)**
- **China Undergraduate Mathematical Contest in Modeling: 2nd Prize in Chongqing Contest District (2017)**
- **Mathematical Contest In Modeling: Honourable Mention (2017)**
- **The First Prize Scholarship of Southwest University (2016 – 2017)**

LANGUAGE PROFICIENCY

- **Chinese:** Native speaker.
- **English:** Fluent. IELTS(Overall: 7.5).
- **German:** Medium. Obtained Goethe Certificate A2 and leaned for B2.
- **French:** Beginner. Finished the content of A1 level.

RESEARCH INTERESTS

Sentiment Analysis, Language Modelling and Neural Machine Translation

PROGRAMMING SKILLS

- **Languages:** Python, MATLAB, C, C++, Java, R
- **Toolkits:** PyTorch, TensorFlow, Keras, Sklearn, NLTK, NumPy