# YINING LU

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# **EDUCATION**

The University of Notre Dame (ND)

Ph.D. in Computer Science and Engineering Expected: May. 2029

• Advisor: Dr. Meng Jiang

• Research Interest: Natural Language Processing, Language Model

The Johns Hopkins University (JHU)

Baltimore, MD

Notre Dame, IN

M.S. in Data Science

May. 2024

Kean University (WKU)

Wenzhou, China

B.A. in Mathematical Science, Minor in Computer Science (Cum Laude)

Jun. 2022

#### EXPERIENCE

Research Assistant Aug. 2024 - PRESENT

Department of Computer Science and Engineering, ND

Notre Dame, IN

• Researching at DM2 Lab: Data Mining towards Decision Making, advising by Dr. Meng Jiang.

Graduate Research Assistant

Apr. 2023 - Jun. 2024

Center for Language and Speech Processing, JHU

Baltimore, MD

- Researched at Intelligence Amplification Lab, advised by Dr. Daniel Khashabi.
- Wrote research papers on topics of tool augmentation, free-text rationales evaluation, and advanced reasoning abilities of language models.

**Co-founder** Feb. 2022 - Jun. 2022

Aritifical Intelligence Lab, WKU

Wenzhou. China

- Co-founded WKU AI lab, advised by Dr. Gaurav Gupta.
- Conducted NLP research projects and taught basic NLP tutorials on attention, transformers, word embedding, parsing, etc.

#### **Quantitative Consultant**

Sep. 2021 - Dec. 2021

Findability Science, Inc.

Remote

- Built a deep factorization machine to estimate the click-through rate of users on advertisements.
- Formulated an unbiased statistical model to estimate the winning probability of bidding price for first-price auction. Created a reinforcement learning model to find the optimal bidding price.
- Researched in the domains of convex multistage problem, nonparametric optimization and Markov decision process, advising by Dr. Gaurav Gupta.

#### Algorithm Intern

Jun. 2021 - Sep. 2021

NetEase, Inc

Hangzhou, China

- Created a supervised behavior assessment model and a real-time unsupervised anomaly detection model to detect risky behaviors and users.
- Utilized Kubernetes and Flink to deploy the pipelines of real-time risky behavior detection models.

#### SKILLS AND COMPETENCIES

Programming: Python, MATLAB, R, SQL, SLURM, LaTeX, JAVA

Frameworks: PyTorch, TensorFlow, JAX, Huggingface, Transformers

Communication: Chinese (Native) and English (Proficient)

# **PUBLICATIONS**

- Yining Lu, Dixuan Wang, Tianjian Li, Dongwei Jiang, Daniel Khashabi. Benchmarking Language Model Creativity: A Case Study on Code Generation. Under Review. paper
- Zhengping Jiang\*, **Yining Lu**\*, Hanjie Chen, Daniel Khashabi, Benjamin Van Durme, Anqi Liu. *RORA: Robust Free-Text Rationale Evaluation*. Annual Meeting of the Association for Computational Linguistics (ACL) 2024. paper
- Xiao Ye\*, Andrew Wang\*, Jacob Choi, **Yining Lu**, Shreya Sharma, Lingfeng Shen, Vijay Murari Tiyyala, Nicholas Andrews, Daniel Khashabi. *ANALOBENCH: Benchmarking the Identification of Abstract and Long-context Analogies*. Under Review. paper
- Yining Lu\*, Haoping Yu\*, Daniel Khashabi. GEAR: Augmenting Language Models with Generalizable and Efficient Tool Resolution. Conference of the European Chapter of the Association for Computational Linguistics (EACL) 2024. paper
- Yining Lu, Jingxi Qiu, Gaurav Gupta. ProtSi: Prototypical Siamese Network with Data Augmentation for Few-Shot Subjective Answer Evaluation. paper
- Yining Lu\*, Changjie Lu\*, Naina Bandyopadhyay, Manoj Kumar, Gaurav Gupta. Functional Optimization Reinforcement Learning for Real-Time Bidding. Under Review. paper
- Yining Lu. Exact Computation of Transfer Function for Discrete Dynamical System. manuscript

# SERVICE AND TEACHING WORK

Course Assistant: CS 601.471/671 NLP: Self-supervised Models, JHU - Spring 2024

Teaching Assistant: MATH 3291 Internship in the Mathematical Sciences, WKU - Summer 2023

Reviewer: BlackboxNLP Workshop 2024, EMNLP 2023, EMNLP 2022

#### HONORS AND AWARDS

Summa cum laude, Kean University	05/22
2021 Zhejiang Provincial Government Scholarship	11/21
2020 Zhejiang Provincial Government Scholarship	11/20
2020 - 2021 Academic Year Dean's Scholarship-Research and Innovation	12/21
2020 - 2021 Academic Year Dean's Scholarship	12/21
2019 - 2020 Academic Year Dean's Scholarship	11/20
2018 - 2019 Academic Year Dean's Scholarship	11/19

# ACADEMIC COMPETITIONS

Mathematical Contest in Modeling	
Led three-person team to Finalist Prize, Top 1% worldwide	02/21