Wanyong Feng

+1 (984) 322-9494| wanyong@live.unc.edu | https://github.com/WanyongFeng

Education

University of North Carolina at Chapel Hill

Chapel Hill, NC

Aug, 2020 - May, 2021

Master of Science in Computer Science

- **Advisor** Prof. Junier Oliva

University of North Carolina at Chapel Hill

Chapel Hill, NC

Aug, 2018 - Dec, 2020

B.S. in Computer Science, Second major in Mathematics

GPA: 3.816

University of Wisconsin at Superior

Superior, WI

Jan, 2017 - May, 2018

B.S. in Computer Science, Second major in Mathematics

GPA: 3.959

- **Notable graduate Classes:** Information Theory, Machine Learning
- **Notable Undergraduate Classes:** Operating Systems, Machine Learning, Algorithms and Analysis, Computer Architecture, Security, Web Programming, Data Structures, Computer Organization, Models of Language and Computation, Databases and Files, Object-oriented Programming, Linear Algebra, Real Analysis, Numerical Analysis

Research Interest

- **Active Feature Acquisition**
- **Reinforcement Learning**
- **Generative Model**
- **Domain Adaptation**

Research Projects

Interpretation of the RL Agent

- **TL;DR:** This project is about exploring methods to interpret the action sequences of the reinforcement agent
- **Steps**:
  1. Analyze the action sequences by considering the order of the sequence
  2. Leverage the existing clustering methods to divide the action sequences into small groups and analyze them
- **Results:** Found several meaningful groups that can add more interpretation to the action sequences
- **Advisor:** This project is advised by Prof. Junier Oliva as the master degree project

Domain adaptation in semantic parsing

- **TL;DR**: Investigate the adaptability of the existing Text-to-SQL semantic parsers to unknown domains
- **Key Insight:** Improve the parsers' performance of interpreting the utterances into SQL that is grounded on unseen databases
- **Steps:**
  1. Identify two challenges for the current model with zero-shot and low resource settings
  2. Use the generative model to generate Text-Query pairs with features in target domains, which is used to fine-tune the parser
- **Results:** The parser accuracy was improved under this setting
- **Advisor:** This project is advised by Prof. Rui Zhang as the 2020 Pennsylvania State University summer program

Classification on particles

- **Aim:** Predict classification on different particles from different features
- **Key Insight**: Train and analyze results from several different classical classification models, such as logistic regression
- **Advisor:** This project is advised by Prof. Jorge Silva as the course project for machine learning

---

Experience

Research Assistant
LUPA LAB @ UNC Research Group — *Chapel Hill, NC*
2021.3 - Present

- **Advisor: Prof. Junier Oliva**
- **Interpretation of the AFA agent**

Research Assistant
Penn State Department of Computer Science — *State College, PA*
2020.5 - 2020.12

- **Advisor: Prof. Rui Zhang**
- **Domain Adaptation in Semantic Parsing**

Software Engineering Intern
SHANGHAI AMARSOFT INFORMATION & TECHNOLOGY COMPANY — *Shanghai, China*
2019.5 – 2019.8

- **Advisor: Hao Ding**
- **Built web crawlers to collect data from websites using Java**
- **Stored and Analyzed data using SQL**

Awards/Honors

2020.1 - 2020.5	**Software engineering competition** Top 3 out of 30 projects
2019.10	**Hack NC** Top 10 out of 100 projects
2018.8 - 2020.12	**Dean List** All possible semesters
2018.3	**Computer Science Competition** First Place

Skills

Proficiency in Python, Git, JavaScript, Tensor Flow, R, SQL, Mongo DB, React
Familiarity in Java, C, C++, HTML, CSS, Bootstrap, AJAX
