Jingfeng Yang

1000 NORTHSIDE DR NW APT 1319，Atlanta, Georgia (GA) 30318 (404)513-4445 jyang690@gatech.edu

PROFESSIONAL SUMMARY

Skilled Object-Oriented Programmer. Experienced in design, implementation and integration. Proficient at natural language processing and machine leaning, from algorithms to tools. Fast self-learning and deep dive. Effective communication.

SKILLS

- C++
- C#
- Python/PyTorch/TensorFlow/Scipy/Scikit-Learn
- Java
- SQL
- JavaScript/Jquery/Express/HTML/CSS/XML

EDUCATION

Master of Science: Computer Science, Expected in May 2021 **Georgia Institute of Technology** – Atlanta, GA

Bachelor of Science: Computer Science (Double Degree), Sep 2015- July 2019 **Peking University** – Beijing, China

Bachelor of Science: Biological Science, Sep 2015- July 2019 **Peking University** – Beijing, China

Core Courses: Empirical Method in Natural Language Processing (95.5) / Mathematical Logic(95) / Discrete Mathematics (94) / JavaScript Web Programming (94) / Software Engineering (93) / Java Programming (92) / Data structure and Algorithm (90.5) / Introduction to The Database (90) / Introduction to Parallel and Distributed Computing (89) / Linear Algebra(89) / Probability Theory and Statistics (A) (89) / Compiler Design (89) / Principle of Microcomputer (89) / Numerical Methods(88) / Networking Technology and Practices (88) /Advanced Mathematics(87) / Operating Systems / Algorithm Design and Analysis / Introduction to Computer Networks / the C++ Programming Language /…

WORK HISTORY

SDE Intern 12/2018 to 03/2019

Microsoft Software Technology Center Asia (STCA) – Beijing, China

- Used C# to develop a fast and accurate Structured Perceptron part-of-speech (POS) tagging tool as a part of Microsoft Forms.
- Used Meta-BiLSTM and ELMo to reproduce the state-of-the-art POS tagging results in PTDB dataset and Noun-verb Dataset.

Research Intern 07/2018 to 09/2018

Institute for Language, Cognition and Computation, The University of Edinburgh – Edinburgh, UK

- Used Pytorch to implement a model composed of a tree-LSTM encoder and a three-stage coarse-to-fine decoder with attention mechanism and copying mechanism to conduct semantic parsing.
- Applied the model to generating Discourse Relation Structure Representations for Parallel Meaning Bank.
- Leveraged Universal Dependency structure information and cross-lingual word embeddings to conduct experiments in Italian, German, and Dutch while training the model using English data.

Research Intern 06/2017 to 06/2019

Institute Of Computational Linguistics, Peking University – Beijing, China

- Applied an adversarial multi-task neural network to cross-lingual Elementary Discourse Units segmentation using Tensorflow.
- Used SVM, Logistic Regression and Random Forest along with some useful features, including some specific constituency parsing tree features, to conduct English EDU segmentation.
- Developed a Fast and Accurate Elementary Discourse Units segmenter using BiLSTM-CRF, self-attention and ELMo.

PROJECT EXPERIENCE

Biomedical Question Answering | Python/PyTorch 02/2019 to 06/2019

- Used PyTorch to implement a question-based extractive summarization system to automatically answer questions in the biomedical domain and ranked the 5st in the BioASQ Task 7b Phase B.

Parallel Implementation of Single-Source Shortest Path (SSSP) | C++/OpenMP 02/2019 to 06/2019

- Used C++ and OpenMP to implement both serial and parallel versions of Bellman-Ford algorithm, Dijkstra algorithm and Δ -stepping algorithm to solve SSSP problem. Improved the speed in the benchmark of the 9th DIMACS Implementation Challenge.

YouKnow App | Javascript/Express 02/2018 to 06/2018

- Designed an app where users with mobile phones could subscribe some websites and the server could push useful messages to

users when the subscribed website is updated.

● Used Express (Javascript) framework and MySQL in backend and Android (Java) in frontend. Implemented real-time server push using JIGUANG.

● **Semantic Role Labeling** | Python/ Scikit-Learn 04/2018 to 05/2018

Advisor: Weiwei Sun Referring to the paper "Calibrating features for semantic role labeling"

Used linguistic features, especially constituency tree path, and SVM in semantic role labeling and achieved competitive results in PropBank.

Value Range Analysis in Compiler | Python 05/2018 to 06/2018

● Transformed SSA file to eSSA code, constructed constraints graph and computed strongly connected components

● Conducted widening, future resolution and narrowing to finish range value analysis.

Battle City | Java 04/2017 to 06/2017

● Implemented a fully functional game Battle City using Java.

PUBLICATIONS

● **Jingfeng Yang**, Federico Fancellu, Bonnie Webber. 2019. A survey of cross-lingual features for zero-shot semantic parsing. *arXiv:1908.10461*

● **Jingfeng Yang**, Sujian Li. 2018. Chinese Discourse Segmentation Using Bilingual Discourse Commonality. *arXiv:1809.01497.*

● Yizhong Wang, Sujian Li, **Jingfeng Yang**. 2018. Toward Fast and Accurate Neural Discourse Segmentation. In *2018 Empirical Methods in Natural Language Processing (EMNLP).*

● Yizhong Wang, Sujian Li, **Jingfeng Yang**, Xu Sun, Houfeng Wang. 2017. Tag-enhanced tree-structured neural networks for implicit discourse relation classification. In *The 8th International Joint Conference on Natural Language Processing* (*IJCNLP*).