

Yusen Zhang

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EDUCATION BACKGROUND

B.S. in Computer Science, School of Computer Science, Beijing Institute of Technology *Sept. 2014-Jun. 2018*

GPA: 3.6/4.0 (Rank: 9/166)

Courses: data structure, object-oriented programming, algorithm design, discrete mathematics, C Language Programming, etc.

Publications

Hui Chen*, Zijia Lin, Guiguang Ding, Jianguang Lou, **Yusen Zhang***, Borje Karlsson. GRN: Gated Relation Network to Enhance Convolutional Neural Network for Named Entity Recognition. To appear in *Proceedings of the 33rd AAAI Conference on Artificial Intelligence (AAAI 2019)*.

* indicates students

RESEARCH AND INTERNSHIP EXPERIENCE

Research Assistant at Stanford University

Jul 2018 – Aug 2018

- Studied the exact and approximate solutions to Deterministic Decision Tree and gradient descent in Random Decision Tree.
- Implemented the skip-node algorithm in C++
- Utilized dynamic programming and hashing methods to optimize Deterministic Decision Tree.
- Proposed a novel method of calculating gradient in a tree structure,.
- Conducted experiments for the novel methods to obtain a better performance on various datasets.

Research Intern at Microsoft Research Asia (Mentor: Zijia Lin, Big Data Mining Group)

Aug. 2017-April. 2018

Pattern System: A pattern matching based intention recognition system

- Developed the system in C#.NET MVC/JavaScript based on Microsoft Language Understanding Intelligent Service.
- Implemented a data platform that includes user entity and user intention to test user utterances.
- Designed a database through Microsoft SQL server and utilized C# for the back-end implementation.
- Designed an interactive mode to enable users to mark utterances and store entity conveniently.
- Wrote a paper for the ACM Conference on Human Factors in Computing Systems (CHI).

A DNN based entity extraction system: EdiLU

- Conducted a literature review, reviewed the code, and grasped the application of EdiLU: a Chain CNN-CRF model-based user entity extraction system.
- Rewrote the code by CNTK(Microsoft Cognitive Toolkit)
- Trained eight datasets on NVIDIA Tesla P100, improved the F1 score and obtained a higher model accuracy.
- Encapsulated the model into Microsoft Office Software.

Gated Relation Based Name Entity Recognition

- Conducted a literature review on Named Entity Recognition.
- Conducted experiments of combining the InceptionNet in embedding layer and Gated Relation in Relation layer.
- Constructed a whole new model on Tensorflow, and tested the model on CoNll03 with a better F1 score.

- Published a paper for the AAAI Conference on Artificial Intelligence.

AWARDS & HONORS

- Bronze Medal, ACM-ICPC (International Collegiate Programming Contest) Asia Regional Contest, 2016.10.16
- Silver Medal, CCPC (China Collegiate Programming Contest), 2016.9
- Honorable Mention, American Mathematical Modeling Contest (MCM), 2016
- Award of Excellence, “Star of Tomorrow Internship Program” in Microsoft Research Asia, 2018.6.22
- First Prize (two times), “Lanqiao Cup” Programming Provincial Contest, 2015, 2016
- Beijing Institute of Technology Title of outstanding student, 2015
- Beijing Institute of Technology scholarship for scientific and technological progress(19/3000), 2017
- Beijing Institute of Technology “Renmin” Scholarship(six times in a row), 2014-2017

SKILLS

- Programming: C, C++, HTML\CSS\JavaScript, C#(asp.net), Python(tensorflow, pytorch, etc.), Linux, etc.
- HCNA(Huawei Certified Network Associate)-Cloud Computing Career Certification
- English(Fluent), Mandarin(Native)

ACTIVITIES

- Association for art of algorithm and programming, president, Sept. 2015-Jul. 2016.
- Gubeikou social practice, group leader, Sept. 2015.
- Beijing Motor Museum, volunteer, Sept. 2014.