

Huiyuan Xie

Room G602, New Main Building
School of Computer Science and Engineering
Beihang University
Beijing 100191, China

Mobile: (+86) 186-0083-8365
Email: xiehuiyuan@buaa.edu.cn

EDUCATIONAL BACKGROUND

- | | |
|------------------------|---|
| Sept. 2014 - Present | Master's degree candidate for Engineering in Computer Science
Beihang University , Beijing, China <ul style="list-style-type: none">· GPA: 3.80/4· Ranking: 4/228 (top 2%)· Specialization: Belief Revision and Mathematical Logic· Supervisors: Wei Li and Jie Luo |
| Sept. 2010 - July 2014 | Bachelor of Engineering in Computer Science
Beihang University , Beijing, China <ul style="list-style-type: none">· GPA: 3.62/4· Ranking: 13/210 (top 6%)· Major: Computer Science and Technology |

RESEARCH INTERESTS

Statistical machine translation; phrase pair extraction; and improving fluency in long-context machine translation.

PUBLICATIONS

- Liang Dong, Jie Luo, **Huiyuan Xie**, “Computing All Minimal Inconsistent Subsets in Description Logic,” in *International Conference on Software and Information Engineering*, 2017 (to appear).
- **Huiyuan Xie**, Jie Luo, “An Algorithm to Compute Minimal Unsatisfiable Subsets for a Decidable Fragment of First-Order Formulas,” in *IEEE International Conference on Tools with Artificial Intelligence*, 2016.
- Yuze Wei, Jie Luo, **Huiyuan Xie**, “KGRL: An OWL2 RL Reasoning System for Large Scale Knowledge Graphs,” in *International Conference on Semantics, Knowledge and Grids*, 2016.

RESEARCH EXPERIENCE

MUS Extraction for Decidable Fragments of First-Order Formulas

Research Assistant

09/2015 - 07/2016

State Key Laboratory of Software Development Environment, China

Funded by the National Natural Science Foundation of China (Grand No. 61502022) and State Key Laboratory of Software Development Environment (Grand No. SKLSDE-2015ZX-22).

- Proposed an innovative algorithm to compute minimal unsatisfiable subsets (MUSes) for decidable fragments of first-order formulas. This instantiation-based algorithm adopts a “split-merge” approach to complete MUS extraction, which is inspired by the process of logical deduction in belief revision. The results were presented in a conference paper (see publication list).

- Implemented the algorithm and optimized the implementation by utilizing pruning strategy, bitsets, etc.
- Analyzed the effectiveness and efficiency of various merging strategies. A heuristic strategy was proposed and evaluated.
- Conducted an empirical evaluation and complexity analysis.

Inconsistency Detection for Knowledge Graphs

Research Assistant

03/2015 - 07/2015

State Key Laboratory of Software Development Environment, China

- Conducted instance reasoning, so as to exploit hidden information in knowledge graphs.
- Detected inconsistencies by applying OWL2 RL rules of inconsistency.

Construction of Automatic Reasoning System for R-calculus

Undergraduate Research Assistant

12/2013 - 06/2014

State Key Laboratory of Software Development Environment, China

- Constructed a lemma library as an extension of axiomatic system rules to assist the theorem proof process.
- Analyzed and implemented various reasoning strategies.

PalmCloud: Mobile Classroom Leveraging the Cloud

Undergraduate Research Assistant

05/2012 - 11/2012

Institute of Advanced Computing Technology, Beihang University

- Worked on PalmCloud, an application that effectively leverages cloud capability for file sharing, remote presentations and interactive communication.
- Constructed a portal to provide user interfaces to the back-end system and managed client-server communication.
- Implemented modules for account management, device management and file operations.

HONORS AND AWARDS

➤ Honors

11/2016 Excellent Student Cadre, Beihang University
 12/2015 Outstanding Graduate Student, Beihang University
 06/2014 Outstanding Graduate, Beihang University

➤ Scholarships

11/2016 Guanghua Scholarship (7/228)
 12/2015 MediaTek Scholarship (4/228)
 09/2015 Outstanding Student Scholarship, Beihang University
 12/2012 Huawei Scholarship (2/210)

SOCIAL ACTIVITIES ON CAMPUS

- Secretary General of the Student Union (Since 03/2015)
- Vice president of the class (Since 09/2014)

ADDITIONAL SKILLS & INTERESTS

- Languages Mandarin (native), English (fluent), Cantonese (basic), French (basic)
- Hobbies Chinese calligraphy, Piano, Ikebana, Yoga