JIAN WANG
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Skills

- **Programming Languages**: Python, C/C++, MATLAB, PHP, SQL
- **Frameworks**: PyTorch, TensorFlow, Git
- **Natural Languages**: English, Chinese

Experience

Natural Language Understanding (NLU) Scientist, LivePerson Nov 2018 – present

- Implemented state-of-the-art deep learning sentence classifiers in PyTorch in production environment
- Designed data loading architecture, performance metrics, and data input/ output format
- Boosted model performance by applying deep contextualized word representations

Graduate Student Instructor, University of Michigan Sep 2016 – Apr 2018

- Hosted machine learning challenges, designed machine learning tasks and evaluation metrics
- Taught discussion classes of sizes from 20 to 100 on computer vision and discrete math

Research Assistant, University of Michigan Summers 2017 & 2018

- Trained deep neural networks to solve question answering and theorem proving tasks

Projects

Question answering through 2d-memory deep neural networks Sep 2017 – Aug 2018

- Created question-answering datasets for benchmarking spatial-relation understanding
- Designed spatial-aware deep learning models for our datasets. Implemented models in TensorFlow
- Benchmarked our models and other question answering models on our datasets. Our model achieved state-of-the-art performance

Collecting a theorem proving dataset Sep 2017 – May 2018

- Collected dataset from theorem proving system. Implemented Python interface to enable easy access
- Cooperated with authors of theorem proving system to update APIs and fix their bugs

Premise selection for theorem proving by deep graph embedding Mar 2017 – Jun 2017

- Constructed neural network in PyTorch to determine useful lemmas in proving a mathematical theorem
- Outperformed the former best model on theorem-proving dataset by 7% accuracy

Parallel simulation of sticky particles Dec 2016

- Simulated sticky particles in parallel using C++ and Message Passing Interface (MPI)
- Designed load-balancing mechanism for high efficiency

Publications

Think Visually: Question Answering through Virtual Imagery
Ankit Goyal, Jian Wang, and Jia Deng. *Association for Computational Linguistics (ACL), 2018.*

Premise Selection for Theorem Proving by Deep Graph Embedding
Mingzhe Wang, Yihe Tang, Jian Wang, and Jia Deng. *Neural Information Processing Systems (NIPS), 2017.*

Education

University of Michigan Ann Arbor, MI
Master of Science in Computer Science GPA: 3.87 Sep 2015 – Aug 2018
Coursework: Machine Learning, Parallel Computing, Algorithms, Randomness and Computation

Peking University Beijing, China
Bachelor of Science in Physics GPA: 3.73 Sep 2011 – Jun 2015
Coursework: Probability Theory and Statistics, Mathematical Modeling, Theoretical Computer Science