JIAN WANG
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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

Skills

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

Projects

Deep sentence classification models Nov 2018 – present
- Trained and compared state-of-the-art contextual word embedding models
- Implemented deep sentence classifiers in PyTorch and trained on top of contextual embeddings
- Tested model accuracy, inference speed, and memory usage in production environment

Question answering through 2d-memory deep neural networks Sep 2017 – Aug 2018
- Created two synthetic question-answering datasets using Python that test spatial-relation understanding
- Designed a deep neural network in TensorFlow to perform question answering tasks, which can capture spatial relations explicitly from text descriptions
- Demonstrated the advantages of our spatial-relation modules via experiments on our datasets

Collecting a theorem proving dataset Sep 2017 – May 2018
- Collected a dataset from a mathematical theorem proving system, annotated the data using existing APIs, and provided a Python interface to enable easy access
- Cooperated with the authors of theorem proving system to update APIs and fix bugs

Premise selection for theorem proving by deep graph embedding Mar 2017 – Jun 2017
- Constructed a neural network in PyTorch to determine if a premise is useful in proving a conjecture
- Outperformed the former best model on the HolStep theorem-proving dataset by 7% accuracy

Parallel simulation of sticky particles Dec 2016
- Simulated a box of sticky particles in parallel using C++ and Message Passing Interface (MPI)
- Designed load-balancing mechanism for high efficiency

Experience

Natural Language Understanding (NLU) Scientist Nov 2018 – present
- Implemented state-of-the-art deep learning models in production

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