JIAN WANG

jianwolf@umich.edu • (734) 548-7758

Objective

Full-time software engineer position in machine learning, deep learning, or computer vision

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

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

Shape-from-shading in-class challenge   Apr 2017 & Apr 2018

- Built a website to host challenge in computer vision class consisting of a login system, an evaluation system, and a leaderboard, using HTML, PHP, SQL, and Python

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

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

- Taught discussion classes of sizes from 20 to 100 on computer vision and discrete math
- Designed homework and exams with professors

Research Assistant, University of Michigan   Summers 2017 & 2018

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

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.*