SHIH-MING WANG

: swang150@ucsc.edu
: http://ipod825.github.io/
: https://www.linkedin.com/in/shih-ming-wang

Education

Ph.D., Computer Science, University of California, Santa Cruz (GPA:4.0/4.0) Sep. 2016-Present
M.S., Computer Science, National Taiwan University (GPA:4.21/4.3) Sep. 2012 - June 2014
B.S., Electrical Engineering, National Taiwan University Sep. 2008 - June 2012

Publication

Wang, S. M., & Ku, L. W. (2006). ANTUSD: A Large Chinese Sentiment Dictionary.

Wang, S. M., Tung, Y. F., & Yu, T. L. (2014, July). Investigation on efficiency of optimal mixing on various linkage sets. In 2014 IEEE Congress on Evolutionary Computation (CEC) (pp. 2475-2482). IEEE.

Wang, S. M., Wu, J. W., Chen, W. M., & Yu, T. L. (2013, July). Design of test problems for discrete estimation of distribution algorithms. In Proceedings of the 15th annual conference on Genetic and evolutionary computation (pp. 407-414). ACM.

Research Experience

Academia Sinica, Research Assistant Aug. 2015 - July 2016

Lightweight Discourse CNN Model for Sentiment Analysis

- Proposed a new CNN model incorporating the knowledge of discourse rules (e.g contrast and concession) and the learning ability of the deep neural network.
- Performed experiments on several well-known sentiment analysis datasets (e.g. Stanford Sentiment Tree-bank) showing the simplicity and effectiveness of the proposed model.

Sensing Emotions in Text Messages

- Supervised on the project aiming to build a system that automatically conveys the emotion of received text to enrich the context in computer mediated communications.
- Built sentiment classifiers from LiveJournal posts with pre-trained word embedding as features.

Augmented NTUSD: Built a Chinese sentiment dictionary containing polarity information of words for use of research on sentiment analysis. Designed experiments to test the applicability of the dictionary.

National Taiwan University, Graduate Research Assistant Sep. 2012 - June 2014

Thesis: Investigation on Optimal Mixing with Linkage Sets and Its Application
LTGA Improvement: Analyzed on a theoretical basis how the linkage-tee genetic algorithm (LTGA) utilizes its linkage model and improved LTGA by applying a dynamic model throughout the optimizing process.
GA Benchmark Design: Analyzed on a theoretical basis what problems are difficult for genetic algorithms (GA-hard) and designed a benchmark with controllable problem complexity for testing modern GAs.

Teaching Experience

University of California, Santa Cruz, Teaching Assistant Sep. 2016 - present

- Assisted with course: Introduction to Programming in Python
- Conducted weekly assignment session
- Provided individual and small group instruction during office hours
- Graded homework & exams

National Taiwan University, Teaching Assistant Sep. 2013 - June 2014

- Assisted with courses in Probability and Statistic, Algorithm, Genetic Algorithm
- Gave review lectures with designed problems
- Graded homework & exams

ACHIEVEMENT & AWARDS

Fellowship, University of California, Santa Cruz Jan. 2017 - Mar. 2017

Teaching Assistantship, University of California, Santa Cruz Sep. 2016 - present

Travel Grant of Domestic Graduate Attending International Symposiums, Ministry of Science and Technology, Taiwan Sep. 2014

Teaching Assistantship, National Taiwan University Sep. 2013 - June 2014

- Available to top 10% of graduate students.

Projects

Keraflow: Personal open source project implementing a deep learning library on top of Theano and Tensorflow.
Recommendation System on Yelp Data Course project for Machine Learning class (UCSC). Implemented (using only scipy & numpy) a hybrid collaborative filtering model combining neighborhood model and factorization model, trained by batch gradient descent.
Chinese OCR: Course project for the OCR contest in Machine Learning class (NTU). Implemented algorithms including naieve Bayes, support vector machine, neural network. **ChenLianYen**(Javascript): Course project implementing a web-based RPG game, where the user can control the role to explore the map and attack monsters on the map.

Extracurricular

Swimming Team of Medicine School, National Taiwan University 2012-2014

- Finisher, 1.25 miles open water swimming

Taichung City Alumni Club, National Taiwan University 2008-2011

- Deputy Director of Activity Group
- Convener of summer camp for freshman

Skills

Programming Language: C/C++, Java, Python, R, MATLAB, Javascript
Machine Learning Libraries: scipy, scikit-learn, Stanford CoreNLP, Keras, Theano, tensorflow
General: Git, neovim, pandas, matplotlib **Foreign Languages**: Chinese (native), Taiwanese (intermediate)