XIANGYI MENG
Xiamen University
Fujian, China
E-Mail: mengxy@stu.xmu.edu.cn

Education

2014 – 2018 **XIAMEN UNIVERSITY,** Fujian, China
B.E. in Computer Science, June 2018. (Excepted)
Major GPA: 3.5/4.0(Top 10% in my department)

Research/Project Experience

A keyword-based auto generating system for Chinese couplets[1]
Advisor: Prof. Xuling Zheng

- Novelly expand the current method for couplets generating based on a given sentence to an approach using given keyword.
- A phrase-based SMT model is deployed to generate the initial couplet pairs and an approach for optimizing the quality of the couplets based on immune algorithm is proposed.
- An SVM is trained for the evaluation of the couplets using manually pre-labeled couplets.
- My contributions:
  - Retrieving more than 600,000 pairs of couplets to establish the training set using a web crawler.
  - Implementing a demo about our system using C# that for a given keyword, our system can generate a list of couplets matched that keyword affectively and artistically.

A basketball shooting training and motion tracking system via machine learning *(sponsored by Google University Relations in China, plan to be finished at Oct 2017)*
Advisor: Lingxiang Zheng, Senior Engineer

- A neural network embedded on Intel Curie is applied for the evaluation of the shooting performance using features extracted from accelerometer and gyrometer data.
- Inspired by Robotics, we constrained the possible location of the joints in the arm into certain spaces represented as point-clouds, aiming at simulating the shooting motion.
- A modified hidden Markov Model is proposed to track the motion of shooting, which its states are defined in the spaces of the point-clouds.
- My current contributions:
  - Proposing the architecture and the model of our system
  - Implementing the machine-learning algorithm

Iteratively collective prediction of disease-gene associations through the incomplete network *(a paper under revision and planned to be submitted)*
Advisor: Prof. Xiangxiang Zeng

- Studied the similarity measure of the nodes in heterogeneous network and came up with "weighted path count with random walk" to fit the complex topological architecture.
- PU learning is studied and integrated into the classification method in view of negative samples in gene-disease link datasets are extremely scarce.
- Being different with state-of-the-art singleton approach, an iterative framework for link prediction on heterogeneous network is proposed and deployed on gene-disease link prediction.
- My contributions:
  - Designing and implementing the framework via MATLAB
  - Contributing on data analysis, interpretation, and validation
  - Writing the manuscript

A Django based online Q&A system *(Xiamen University Turing Class Online System)*

- Inspired by Stackoverflow.com, we developed an similar online QA website based on the Django framework to provide a platform for the teachers and students at XMU to communicate with each other.
- Currently, our project is still being developing, and it has 4 basic functions: User Control, Q&A, Online Test, File Upload&Download.
- Our project is deployed on a Ubuntu server at Ali Cloud using uWSGI and Nginx.
- My contributions:
  - Database design
  - Developing and maintaining the Q&A function

- Configuring and maintaining the server

Publications

2017

- **Xiangyi Meng**, Rui Xu, Xuantong Chen, *Lingxiang Zheng, et al., Human Action Classification in Basketball: A Single Inertial Sensor Based Framework, *The 6th International Conference on Frontier Computing (FC 2017), Osaka, Japan*
- Yizhen Wang, **Xiangyi Meng**, *Lingxiang Zheng, et al., A Smartphone Inertial Sensor Based Recursive Zero-Velocity Detection Approach, *The 6th International Conference on Frontier Computing (FC 2017), Osaka, Japan*

Selected Awards

2014 - 2015	National Scholarship
2014 - 2015	Outstanding Merit Student, Xiamen University
2015 - 2016	Excellent Young Volunteer, Xiamen University
2016.1	Successful Participant, 2016 Interdisciplinary Contest In Modeling
2016.8	First prize[1] of the 6th "Huawei Cup" AI Designing Competition of University Students in China
2016 - 2017	Excellent Student Cadre, Xiamen University
2016 - 2017	Scholarship for Academic Innovation, Xiamen University

Skills

Experienced: C, C++, C#, MATLAB, Latex, Python, Git, Linux
Amateur: Java, Web Development, TensorFlow