YANGKAI DU

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EDUCATION

Zhejiang University *June 2017 - Present*
Dual degree program in Zhejiang University/University of Illinois at Urbana-Champaign Institute
Major: Computer Engineering
Expected Graduation Date: June 2021

B.ENG. in Computer Engineering, Zhejiang University
B.S. in Electrical and Computer Engineering, University of Illinois at Urbana-Champaign

University of Illinois at Urbana-Champaign *August 2019 - Dec 2019*
Exchange Student in Department of Electrical and Computer Engineering

overall GPA: 3.87

ACADEMIC INTERESTS

Interested in **Natural language processing**, **pattern recognition** and **Artificial Intelligence**. Recently, he has been involved in a knowledge graph construction projects for intelligent maintenance of power plant.

RESEARCH EXPERIENCE

Face recognition on a small scale of data
Advisor: Haoji Hu *June 2018 - July 2018*

- The research project intends to propose a novel neuro-based model to improve the performence of face recognition task under small scale of training data.
- Learned basic concepts and techniques of neuro network and pattern recognition.
- Implemented a very basic neuro-based handwritten digit recognition model.

knowledge graph construction for intelligent maintenance of power plant
Advisor: Hongwei Wang *April 2019 - Present*

- The research focuses on the experience feedback issue in power plants maintenance.
- The research intends to propose a novel process of automatic construction and reasoning of knowledge graphs to support the intelligent maintenance of complex power equipment.
- We manually labeled part of maintenance report and did some experiment by training Bi-LSTM-Lattice model on entities extraction and Multi-grained lattice model on relation extraction.
- Our paper is accepted as a long paper of International Conference on e-Business Engineering (ICEBE) and published by Springer-Verlag. The paper also got **Best Paper Award** on ICEBE 2019.

PUBLICATION

knowledge graph construction for intelligent maintenance of power plant
Yangkai Du, Jiayuan Huang, Shuting Tao, Hongwei Wang. Advances in E-Business Engineering for Ubiquitous Computing. ICEBE 2019. Lecture Notes on Data Engineering and Communications Technologies, vol 41. Springer, Cham.

SKILLS

Programming Languages	Python, C, C++
Packages & APIs	Pytorch, Numpy
Tools	SVN, Git, Shell, Latex, Matlab
Languages	Chinese, English

SELECTED HONORS & AWARDS

Best Paper Award ICEBE2019. Awarded to 2 out of all the submissions 2019

Third-class Scholarship of Zhejiang University 2019

Best Summer Research Projects/Internship of Zhejiang University/University of Illinois at Urbana-Champaign Institute 2019

Third-class Scholarship of ZJUI 2019

Academic Excellent Individual of Zhejiang University 2019

Third-class Scholarship of ZJUI 2018

RELEVANT COURSEWORK

CS101-Intro Computing: Engrg & Sci **A-**
learned some basic python and matlab programming language and skills.

ECE120-Intro to Computing **A**
learned about assembly language and some basic concepts of machine-level architecture.

ECE220-Computer Systems & Programming **A**
learned about assembly language and some basic concepts of machine-level architecture.

CS225-Data Structures **A**
learned concepts and applications of basic data structures, implementing data structures with C++

ECE374-Algorithms & Models of Computation **A**
learned design and analysis of algorithms, formal automata, computability, and complexity.

ECE391-Computer System Engineering **A**
learned concepts of modern computer system design and system programming skills.

ECE448-Artificial Intelligence **A**
learned basic concepts of AI, basic techiques of neuro network and reinforcement learning, coding with pytorch

CS447-Natural Language Processing **A**
learned basic concepts of computational linguistics, from morphology, syntax to semantics, nlp applications such as syntax parsing, machine translation, generation and dialog systems.

TRANSCRIPT

A Completed Version of official Transcript can be checked and downloaded **here**.