

Anyi LI

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RESEARCH INTERESTS

Machine Learning and its applications, Linguistics, Natural Language Processing, Social Science

Education

University of Science and Technology of China (USTC)

Anhui, China

School of Computer Science and Technology, Bachelor of Computer Science

2017.08 - 2021.06(Expected)

- **Computer Science Courses:** Algebraic Structure | Graph Theory | Mathematical Logic | Operation Research | Operating System | Microcomputer Systems | Web Information Processing and Application | Compilers | Computer Networks | Algorithms | Data Privacy | Computer Architecture | Parallel Computing | Artificial Intelligence

Research Experiences

University of Science and Technology of China (USTC)

Anhui, China

- **FCN-based Medical Image Recognition in Real-life Diagnosis of Pancreatic Cancer**

2018.01-2018.09

Supervised by Prof. Hong An

- Aimed to automatically recognize the 3D segment structures images of Pancreatic Cancer, hence reducing the work of first-line doctors.
- Participated in construction of a tool-kit based on ITK-SNAP which allows AI to manipulate segment structures in 3D medical images.
- Responsible for project coordination between software development and algorithm tuning.
- The finished software has being tested by Anhui Provincial Hospital and implemented on a small scale.

- **Knowledge-based Sequential Decision Making under Uncertainty**

2020.09-now

Supervised by Prof. Jianmin Ji

- Aimed to improve the performance of reinforcement learning in certain applications.
- Applied reasoning with knowledge methods to reinforcement learning in order to improve performance.
- Currently trying to combine random network distillation with reinforcement learning, hoping for a better results.

Course Projects

- **Recommendation System Based on kNNM**

2019.12

- Developed an algorithm to recommend books, movies and TV shows to users on douban.com based on their history ratings and penchant of their contacts.
- Designed, programmed, trained, tested, and optimized the whole algorithm on my own.

- **C-Minus Compiler**

2019.11

- Realized the bottom-up compiler with C-Minus, including components from lexical analyzer, syntax analyzer, to dead instruction elimination, RISV-V code generation, etc.

- **Named Entity Recognition Based on CRF**

2019.10

- Implemented Conditional Random Field(CRF) algorithm to categorize different medical terms.
- Designed, programmed, trained, tested the whole algorithm on my own.
- Optimized the parameters according to the F1 of training samples.

- **Smart Contract Signing System Based on Ethereum**

2018.01

- Implemented a blockchain which aims to achieve a distributed and trust-worthy contract signing system.
- Designed a Proof of Existence(POE) algorithm, and combined it with cryptocurrency platform.

SKILLS

- **Programming:** C/C++, Python, Unix/Linux. Mathematica
- **Machine Learning Algorithm:** Neural Networks, Reinforcement Learning, Bayesian, SVM, KNN, KMeans
- **Mathematic Skills:** Probability and Statistics, Discrete Mathematics, etc.
- **Machine Learning Platform:** Tensorflow
- **Multilingual:** English, Mandarin, Japanese, Cantonese