GPA: 3.03 / 4.0
IELTS: 6.5 (7,7,6,6)

Linjie(Ethan) Xu

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EDUCATION

Software Engineering — School of Software, Nanchang University — 2016 – 2020 (expected)

INTERNSHIPS

Algorithm Engineer Intern — *Momenta Inc. Beijing* — *2018.07*
- Design and Implement a Visual-based Autonomous robot to play football and compete with other robots. Responsible for path planning and playing strategy.

Algorithm Engineer Intern — *AI Lab, OPPO Corp. Shenzhen* — *2018.09 – 2018.12*
- Design Natural Language Understanding (NLU) algorithm for voice assistant of OPPO's Reno mobile phone.

Research Intern — *Changbin Yu's lab, Westlake University, Hangzhou* — *2019.07 – 2019.09*
- Deep Reinforcement Learning's application on robotic arm manipulations.

Visiting Research Student — *Yu Zhang's lab, SUSTech, Shenzhen* — *2019.10 – current*
- Intrinsic Motivation of Deep Reinforcement Learning

PROJECTS

Reinforcement Learning
- Marlo Challenge 2018 is a Multi-Agent and Multi-task challenge held by Microsoft Research Cambridge and QMUL. I Designed a hierarchical agent based on Reinforcement Learning methods to solve different tasks in Minecraft world. I got sponsorship from **Microsoft Research** and **EPFL**. (3rd place, solo)

CNN music classification
- WWW Challenge 2018 is a music classification challenge. I employed CNN with extracted voice feature (such as the Mel Frequency Cepstrum Coefficient) as input. My approach got accuracy of 76%. (baseline is 60% acc on SVM). (15th place, solo)

Machine Comprehension with diverse attention (2017 - 2018)
- Part of ASC18 Challenge. Based on multi-layer LSTM, we proposed a hybrid bidirectional attention method. Finally, we got 4% ROUGE-L score improvement on MSMARCO dataset proposed by Microsoft.

Open source contribution: Fixed bugs in pytorch/pytorch and Microsoft/nni.

PUBLICATIONS

- Linjie Xu and Yihong Chen. *.A Hierarchical Approach for MARLÖ Challenge*. In 2019 IEEE Conference on Games (CoG) (Aug 2019), pp. 1-4. DOI: 10.1109/CIG.2019.8847943

OTHER AWARDS

- **1st Class (Top 8),** ASC18 Student Supercomputer Challenge 2018 **:** ASC18 is one of the 3 international HPC challenge. The challenge focuses on HPC application on world-class scientific application.
- **3rd National Prize,** China college students' computer design competition**:** Held by Chinese Ministry of Education.

SKILLS

- *Math***:** Analytics, Algebra, Probability, Optimization.
- *CS***:** Data structure and Algorithm, Computation complexity.
- *AI***:** Reinforcement learning, Deep learning, NLP, Optimal Control (Basic)
- *Programming languages***:** C, CUDA C, C++, python (Solid) C#, matlab , rust, ocaml (Experienced).