Yufeng Chen

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EDUCATION

University of Science and Technology of China 09/2017- 07/2021(expected)
Bachelor in Electronic Information Engineering Hefei

- Overall GPA: 3.87/4.3 (90.03/100) Rank: 17/308
- Core Courses:
  EE: Principle of Microcomputer and Embedded System (97/100), Computer Networks (94/100)
  CS & Math: Data Structure and Algorithm (97/100), Probability and Statistics (94/100)

PROJECT EXPERIENCE

Multi-domain Testbed Experiment Based on DeepRMSA 06/2020- 11/2020
Summer intern research (result & code) University of California, Davis
Next Generation Network and System Group (Supervisor: Prof. S.J. Ben Yoo)

- Leveraged deep reinforcement learning (DRL) to solve routing, modulation and spectrum assignment (RMSA) in elastic optical networks in a hierarchical scheme (2 domains, each has 14 nodes)
- Built an application with DRL agents on ONOS platform (provides the control plane for a software-defined network)
- Compared with k-shortest path algorithm in multi-domain situation, my design obtains less blocking probabilities.

Remote Direct Memory Access (RDMA) Optimization on MongoDB 06/2018- 11/2018
Undergraduate research & team competition (doc) USTC
Advanced Computer System Architecture Lab

- Adopted RDMA to replace TCP/IP communication module in MongoDB (a NoSQL database) to reduce latency among cluster servers and clients
- Compared with traditional TCP/IP design, our final RDMA-based version obtains 3.58X/6.16X at peak Put/Get operations speed-up on ordinary data size
- Won the first place in the Inaugural 2018 The sixth Student RDMA Programming Competition organized by HPC AI

Design and Implementation of an Intelligent Air Hockey Robot 03/2019- 06/2019
Course work (demo & code) USTC

- Designed an intelligent air hockey robot that is able to combat in two dimensions and choose attack or defense in the game with a human player
- Implemented with extensive microprocessor programming using Python and basic computer vision technologies provided by OpenCV, for example, dilation and contour finding

AWARDS

- Outstanding Student Scholarship Grade 2 2019
- Electronic Design Contest in School of Information Grade 2 2019
- First Place in the Inaugural 2018 The sixth Student RDMA Programming Competition 2018
- Outstanding Student Scholarship Grade 1 2018
- Outstanding Freshman Scholarship Grade 3 2018

SKILLS

- Programming languages: C&C++, Python, Java
- Software: MATLAB, Git, Quartus, Altium Designer, Keil
- OS: Linux