Ke Zhao

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Jokestv2.github.io

EDUCATIONAL BACKGROUND

Beijing University of Posts and Telecommunications（BUPT）   *Sep 2016 - Jun 2020*
(School of Information and Communication Engineering)   *Beijing, China*

Undergraduate   Major in Telecommunication Engineering

- Major GPA: **4.0 / 4.0**   Overall GPA: **4.0 / 4.0**   Rank: **1 / 570**

University of Cambridge   *Aug 2018 - Sep 2018*
(Wolfson College)   *Cambridge, UK*

- *University of Cambridge-BUPT Joint Top Talent Training Programme*
- Courses: Western Philosophy and Its Use in Qualitative Research, Critical Thinking, VR Technology, Artificial Intelligence, etc.

PERFORMANCE IN CORE COURSES

Specialized

Digital Signal Processing: 98	Principles of Communications: 95
Fundamentals of Information Theory: 95	Communication Electronic Circuit: 95
Digital Circuits and Logic Design: 98	C++ Programming: 97

Basic

Random Signal Processing: 97	Linear Algebra: 97
Signals and systems: 94	Electromagnetic Fields and Waves: 97
University Physics B (I): 100	University Physics B (II): 100

PROJECT EXPERIENCE

Fast-Response Monitor System for Network of Vehicles Based on FPGA Deep Learning Platform   *May 2018 - Present*

Joint research work with Prof. Qimei Cui, BUPT

- Responsible for the realization of inter-vehicle communication and the design of a network-based control algorithm
- Implemented an LSTM network to process GPS data, which improved the robustness of the system when encountering different road types
- Studied the mathematical principles of machine learning and investigate the internal similarity between its algorithm structure to VHDL programming structure
- Used XILINX Zybo Zynq-7000 board to test the algorithm after simulation

3D Head Model Construction from a Single Image for 3D Printing (International PBL project in cooperation with The University of Electro-Communications, Japan)   *Sep 2018 - Dec 2018*

Joint research work with Prof. Chengwen Zhang, BUPT

- Led a 4-member team made up of students from both countries and won the best performance award
- Implemented a complete hair attribute classifier based on the 50-layer ResNet pre-trained with ImageNet
- Designed a small-database-oriented face recognition program based mainly on KNN algorithm

Light-weight Object Detection Program for Smart Monitors   *May 2018 - Jul 2018*

- Independently completed the object detection program based on RGB histogram analysis
- Implemented an interactive user interface for the program with Windows API
- Implemented the object detection program on Raspberry Pi

- The program was rated A-class (5 out of 62)

AI Gobang Chess Game *Jul 2017 - Sep 2017*

- Implemented a Gobang AI system using binary search tree branch-reduction algorithms from scratch in C++
- The AI program was capable of beating average-level human Gobang chess player

AWARDS & HONORS

- 11/2018 National Scholarship
- 05/2018 Selected into Ye Peida Honors College
- 11/2017 1st Prize in National University Student Mathematics Competition
- 11/2017 1st prize in Beijing University Student Mathematics Competition
- 08/2017 Enterprise Scholarship Sponsored by JJWorld (Beijing) Network Technology Co.
- 07/2017 Merit Student of Beijing University of Posts and Telecommunications
- 05/2017 Accepted into the Honors Program of School of Information and Communication Engineering

SKILLS & OTHERS

- Computer skills: C++, MATLAB, Python, R, VHDL, Linux
- Other skills: Latex
- Languages: Chinese(native), English(CET-4:639, CET-6: 579)