

Li Jiahao

(+86) 178 6311 6568 ✧ www.lijiahao@live.cn



Education

B.Sc. Information and Computing Science, Shandong University

Expected: Jun 2020

- GPA: 85.90 | Rank: 8/59 | IELTS | CET4/6 | NCRE2/3 | Postgraduate Recommendation
- Advantages in CS: Data Science and Databases (100), Java Programming (98), C++ Programming (96)
- Advantages in Math: Mathematical Model (99), Digital Approximation (98)

Work Experience

- Intern, Alibaba Group-Alibaba Cloud Intelligence Business Group-Cloud Product Research& Development, Software Engineer, Algorithm position May 2019-SP Offer
-Respond for Control and Optimization of Mega Server Network and Cloud Data Center
- Intern, Institute of Computing Technology, Chinese Academy of Sciences (CAS/ICT) Jan 2019-Today
-Assisted the teacher to complete the research and engineering projects, and wrote the fund document.
- Intern, Deloitte Touché Tohmatsu CPA LLP Beijing Branch (140815) Jan 2018-Mar 2018
-Completed the third-party audit with Anton Oilfield Services Group [03337]. Project volume: 5 million yuan.

Project Experience

THU Intern for A Method of Intrusion and Deception Based on CNN CAPTCHA, VUL337 Research Group, Tsinghua University Mar 2019-Apr 2019

- Hacked a simple CAPTCHA system, cheat on test website successfully.
- Used Keras to build a deep convolution neural network, and trained the data set 20000 samples.

CAS/ICT Intern for AI Self-Driving Car Project, Project accepted Jan 2019-Apr 2019

- Responsible for MCU light version migration based on YOLOv3. Independently undertook the signal light recognition part of the project, and completed the parameter debugging and training of YOLO.
- Led two interns from Sun Yat-sen University and Beijing University of Science and Technology to teach and complete the work of data set annotation.

- Annotated config source code. Gave the meaning of key parameters, debugging tricks.

CAS/ICT Intern for Research on Intrusion Detection Method of Industrial Control Network Based on Situational Awareness, NSFC (F020605) Jan 2019-Mar 2019

- Assisted the teacher to apply for the national natural science foundation project, mainly responsible for the writing of technical route and technical details.
- Proposed an end-to-end network structure for anomaly detection (ECN framework), and independently completed the mathematical formula derivation of model and the network structure design process.
- Form a preliminary report: *An Extraction-Cluster Network Architecture for Anomaly Detection*
- Independently completed and proposed a compound model, and independently designed the framework and derived the formula for the detection and analysis of multi-mode coupling abnormal timing data.
- Form a preliminary report: *A Bi-Decoder Composite Model Based on Attention Mechanism and Conv-LSTM*

Project Leader for Social Network Big Data Influence Maximization Analysis, SDU Fund (2018450) Jun 2018-Mar 2019

- Independently proposed a net positive influence maximization problem (NPIM) for signed networks. For existing unsigned social networks.
- Independently proved its monotonicity and non-submodularity through mathematical derivation, and gave the analysis algorithm of network user influence by using restricted greedy algorithm.
- Co-first author for *Net Positive Influence Maximization in Signed Social Networks* (SCI Under review) IF=3.241

Algorithm Assistant for Study on High-precision Non-rigid Registration Algorithm for 4D Lung CT Images, NSFC (81671848) Dec 2017-Jul 2018

- Helped teachers to consult literature, provided an improved idea for multi-scale medical image processing, and assisted teacher in data analysis and algorithm.
- I independently proposed an improved multi-scale optical flow prediction method based on FLOWNET2.0, and combined the advantages of Lucas Kanade algorithm for small-scale displacement, proposed a composite optical flow prediction model.

Project Leader for Embedded Intelligent Farmland Management System (IFMS) Based on MCU, SRTP (A17290) Oct 2016-Sep 2017

- I Built and deployed a closed loop control system IFMS with functions of temperature, moisture, light sensing, screen display and automatic sprinkler irrigation. I designed the whole hardware circuit and wrote the IFMS program by C language.
- I built and tested the STC12C5A60S2 minimum system, connected multiple sensors such as DS18B20, DHT11 and TCS230 etc., combined with an LCD12864 LCD screen, and external connected with L298N to control agricultural machine. Through the analysis of sensor data, agricultural machinery and tools were controlled, realizing intelligent farmland management.

Reward (Approved by the Ministry of education of China, National Level)

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|---|-------------|--------------|-------|
| ■ The 4th China College Students' "Internet+" Innovation and Entrepreneurship Competition | Team Leader | Bronze Award | 0.03% |
| ■ The 11th National College Students Energy Saving and Emission Reduction Contest | Team Leader | Bronze Award | 3.00% |

■ The 3th "Voice of Youth · Young Maker" Central Group Activities Contest	Team Leader	Bronze Award	1.42%
■ National College Students Entrepreneurship Competition "Creating Youth" Network Information Economy Special Competition	Technology Consultant	Bronze Award	5.85%

Special Honor

■ Outstanding Student of Shandong University in 2018	0.27%
■ Deloitte Global Chinese Elite Top 40 in 2017	0.02%
■ Star of self-reliance of Shandong University in 2017	0.35%
■ Role model of Shandong University in 2017	0.11%

Contests Works

- Cascade Failure Model Simulation Analysis of Computer Network and Power Network
- Differential Discrete Simulation of Multilayer Partial Differential Equations for Heat Conduction
- Embedded Intelligent Farmland Management System Based on MCU
- Computer Vision iSight™ Glasses Based on Deep Learning
- AI-CAD for Medical Assistance System Based on artificial intelligence

Personal Skills

- Programming Language: Matlab, Python, C, C++, Java, Lingo
- Database and Web Design Tools: DBmongo, Django
- Software for Experiment and Paper: LaTeX, Keil C, Pajek, Labellmg
- Software for Office: Word, Excel, PowerPoint, Visio

Other Awards

- Provincial level
 - 2019.01.07, The second provincial second prize of Shandong University Physics Competition (individual);
 - 2018.11.12, The third prize (captain) of the 5th Shandong Science and Technology Innovation Competition, 10,000 yuan; Shandong Jinan
 - 2018.10.29, The second prize (captain) of the Ninth Shandong University Students Entrepreneurship Plan Competition;
 - 2018.10.11, National College Students Mathematical Modeling Competition Provincial Second Prize (Group);
 - 2018.07.17, The 4th Shandong Internet + Innovation and Entrepreneurship Competition, "iSight" Gold Medal (captain), 5w yuan; Qingdao.
 - 2018.07.17, The 4th Shandong Internet + Innovation and Entrepreneurship Competition, "AI-CAD" Silver Medal (Group); Qingdao.
 - 2018.07.17, The 4th Shandong Internet + Innovation and Entrepreneurship Competition, the Silver Medal (Group), Qingdao.
 - 2017.12.04, The 4th Shandong Students Science and Technology Innovation Competition Third Prize (Captain), 10000 yuan; Yantai
 - 2017.10.22, The second prize (captain) of the 8th Shandong University Students Entrepreneurship Plan Competition;
 - 2015.05.23, The 30th National Youth Science and Technology Innovation Competition Shaanxi First Prize (Individual), 3000 yuan; Xi'an
- Enterprise level
 - 2018.09.27, The 4th Beiyang Star Electronic Information and Intelligent Manufacturing Innovation Entrepreneurship Competition Final City Science and Technology Bureau second prize (captain), 30,000 yuan;
 - 2017.05.14, Zhongguancun Innovation and Entrepreneurship Competition City Level Third Prize (Captain), 500 yuan;
 - 2017.09.02, Deloitte, EXCELLENT PERFORMANCE (Captain), 2000 yuan; Shanghai, China
- University level
 - 2019.05.20, The first prize (individual) of the 13th SRTP scientific research project of Shandong University.
 - 2018.11.23, The second prize (group) of tug-of-war competition for Shandong University students;
 - 2018.12.20, The first prize (captain) of the 7th Shandong University "Simulated Stock Market Competition";
 - 2018.11.20, The third prize (captain) of the 7th Shandong University "Patent Product Design Competition";
 - 2018.10.12, The second-class scholarship (individual) for outstanding students of Shandong University School of Mathematics, 2000 yuan;
 - 2018.10.12, Shandong University School of Mathematics Outstanding student (individuals);
 - 2018.06.21, The excellent vice-president of Shandong University's Wangyan Debate Society was well appraised (personally);
 - 2018.06.15, The 4th gold prize (captain) of the "Internet +" Innovation and Entrepreneurship Competition, 10000 yuan.
 - 2018.06.15, The 4th Shandong University "Internet +" Innovation and Entrepreneurship Competition Silver Award (Group), 5000 yuan;
 - 2018.05.25, Third-class prize (group) in the Third Shandong University College Students' Chinese Classic Reading Competition.
 - 2018.05.20, The third prize (captain) of the 11th National College Students Energy Conservation and Emission Reduction Competition;
 - 2018.05.18, The second prize (individual) of the 12th SRTP scientific research project of Shandong University.
 - 2018.04.19, The third award (captain) of "iSight Glass" in the 5th "Creating Youth" Innovation and Entrepreneurship Competition;
 - 2018.04.19, The third prize (captain) in the 5th "Creating Youth" Innovation and Entrepreneurship Competition "Intelligent Farmland";
 - 2018.07.12, The 9th undergraduate research assistant research outstanding (individual);
 - 2017.11.27, The 7th "WEGO Cup" Enterprise Future Elite Competition School Level II Prize PICC Special offer (individual) 500 yuan;
 - 2017.11.21, The second prize (group) of Shandong University Charm Group Branch Competition;
 - 2017.11.02, The 7th Shandong University "Perfect Campus" Creative Thinking Competition first prize (captain);
 - 2017.07.27, The 3rd "Internet +" Innovation and Entrepreneurship Competition Silver Award (captain), 5000 yuan; Shandong, Qingdao.
 - 2017.05.18, The first prize (individual) of Shandong University's "Habit Formation Program" at the school level;
 - 2017.04.15, The third prize (group) of the 2nd Shandong University Students' Chinese Classic Reading Competition;
 - 2016.12.12, The first prize (individual) of Shandong University for "Good Habit Formation Activity" was awarded.
- Department level
 - 2019.03.26, Shandong University Winter Holiday Social Practice Activity "Xianyang Xianyang" Academy Level Third Prize (Individual)
 - 2018.10.17, The first prize (group) of the "Research Group on the Future of Vocational Guidance" in summer social practice activities
 - 2018.10.17, The third Prize (Group) of Camouflage Youth Research Group, Shandong University Summer Social Practice Activity
 - 2018.03.25, The first Prize (Individual) of School of Social Practice, School of Mathematics, Shandong University; Beijing, China
 - 2018.03.23, The first prize (group) of the tug-of-war competition "Fun Weekend" of Shandong University School of Mathematics
 - 2017.12.05, The role model of the 2017, School of Mathematics, Shandong University;
 - 2017.11.13, The third Prize (Group) of Class Psychological Situation Theatre, School of Mathematics, Shandong University;
 - 2017.11.02, The third prize (group) of the Debate Competition of "Knowing Numbers and Reasoning" held by the School of Mathematics
 - 2017.10.27, The star of self-reliance (individual) of the School of Mathematics, Shandong University;
 - 2017.10.15, Shandong University College of Mathematics Outstanding student (individuals);
 - 2017.09.25, The second scholarship (individual) for outstanding students of School of Mathematics was 2000 yuan.
 - 2017.04.25, The second Prize (Individual) of School of Social Practice, School of Mathematics, Shandong University, Winter Holiday, 2017;
 - 2016.11.13, The third Prize (Group) of Debate Competition, School of Mathematics, Shandong University;