Jinwei Lin

Website: en.ydook.cn (global) www.ydook.com
School: East China Normal University Undergraduate
Major: Electronic Science and Technology
Educational Level: Full-time Bachelor
Email: jlin0119@student.monash.edu
Phone: (+86) 13166003498 **Birth**: March, 2, 1994
Specialty: Innovative Ideas, Computer Technologies, IT Project Design, Algorithms and Artificial Intelligence
ORCID : https://orcid.org/0000-0003-0558-6699

Work Experiences:

March, 2020 – June, 2020:

Software Development Engineer in a software and AI information technology company in Shenzhen, China

August, 2020 – April, 2021:

Research Assistant in the Peacock Team of Professor Yongbo Wu, Department of Mechanics, Southern University of Science and Technology, Shenzhen, China

Technology Blog

CSDN Blog: https://ydook.blog.csdn.net/

Blog expert, over 540,000 visitors in 3 years, 62 categories, 4600+ fans, and now the average daily visit is about 900+. (As of October, 2021)

Technology and Capability

1. Rich experiences in IT design, research, application, invention and innovation.
2. More than **500,000** lines of programming experience, mainly used in Python, Golang, JS, HTML, Java and C#.
3. Rich programming experiences in **15** computer programming languages: Assembly, C language, C++, Golang, Java, Kotlin, Python, C#, SQL, Matlab, JavaScript, HTML, CSS,

PHP, Verilog HDL.
4. **15** Gtihub open source software contributions and **1** software copyright empowered.
5. Applied for **15** China national patents, including **6** published invention patents.
6. Two research papers in English have been pre-printed, one research papers in English have been published in IEEE, five research reports and papers written exceeds **80,000** words have been open source. The total number of words in undergraduate thesis exceeds **33,333** words.
7. Independently applied and successfully finished **two** undergraduate main scientific research projects. **15** individual exploration and scientific research projects.
8. Won **8** academic competition awards in undergraduate period, including university-level, province and national awards.
9. Handle two dimensional CAD design software and practical time: AutoCad **5** years, three dimensional mechanical modeling software and practical time: Solidworks **5** years SolidEdge **5** years.
10. Developed a quick database software YDB and a static web server framework YWeb based on Golang+JSON, which are all open sources in Github.
11. Have 3 years of experience in writing utility model and invention patent application specifications and patent applications.
12. Independently developed a third person 3D adventure game based on Unity 3D.
13. Self-developed personal websites: www.ydook.com , ydook.cn and way.ydook.cn.
14. Certifications (in China): Second-level C Language, National Entrepreneurship Professional Ability, Member of Shanghai Popular Science Association, Excellent member of Popular Science Creation Association of ECNU, Student member of ACM, Student member of Chinese Electronics Society, Student member of Machine Learning Professional Committee of Chinese Association for Artificial Intelligence.
15. Editing a technology book: Python Graphical Algorithm.
16. Founded and maintaining the front-end generator framework Way.

Scientific Research and Awards

1. Research Project

Apply independently and complete successfully:

2016 Shanghai University Students Innovative Scientific Research Project
(Undergraduate, provincial project)
Project Title: Zooplankton Filter Project Level: Province

2017 Innovation Research Training Project of East China Normal University
(Undergraduate, university-level project)
Project Title: Artificial Intelligence Express Vehicle Project Level: University

2. Awards (undergraduate stage, in China):

- ✧ April 2017 Excellence Award of National Universities Students Environmental Protection Knowledge Contest (Individual accomplished)
- ✧ May 2017 Third Prize of National Electrician Cup Mathematical Modeling Contest (Individual accomplished)
- ✧ June 2017 Third Prize of the National Physics Experiment Competition (Individual accomplished)
- ✧ October 2017 Individual First Prize of ICAN International Innovation and Entrepreneurship Competition, Jilin Province (Individual accomplished)
- ✧ November 2017 Final Winning Award of ICAN International Innovation and Entrepreneurship Competition China Area (cooperative accomplished)
- ✧ December 2017 Finals Winning Award of JoblabX Career Skills National (Individual accomplished)
- ✧ May 2018, Third Prize of the 8th National MathorCup University Mathematical Modeling Challenge Undergraduate Group (Individual accomplished)
- ✧ July 2018, Second Prize and Encouragement Award of East China Normal University Summer Cup Scientific Research Innovation Competition (Individual accomplished)

3. Pre-print Academic Papers:

PyDraw: A GUI Drawing Generator Based on Tkinter and its Design Concept
Tutor: Aimin Zhou, professor and dean of Computer School of East China Normal University
ArXiv identifier: arXiv: 1808.09094 [cs.se]
ArXiv full-text links: https://arxiv.org/abs/1808.09094
https://arxiv.org/ftp/arxiv/papers/1808/1808.09094.pdf

Wheel Model: An Exposition of Competition and Cooperation
ScoXiv, OSF full-text links: https://osf.io/preprints/socarxiv/hgdwx/
https://osf.io/r386h/?view_only=e05286171eba4979a83a8c64e8a43d35

Paper Set: Robot Detection System Design About Front-Following Technology
A total of five parts, 273 pages, 115 color maps, more than 84,000 words
Details click visit: https://github.com/JYLinOK/FrontFollowing

4. Published Academic Papers:

A Novel Magnetically Coupled Wireless Power Transfer Technique Used in Rotary Machining Process

Online links: https://ieeexplore.ieee.org/document/9457864

Published in IEEE WPTC2021 Proceedings, worked as third author, one of the project assistant supervisors.

Simple Individual Research in Undergraduate Stage

Automatic Soup Machine 2016

(Design and Research of safe green Machinery for catering soup Supply based on Automatic Mechanical Control)

An automatic Monitoring Experiment System for standing Wave Nodes 2016

(Design and research of an experimental system for automatic standing wave node detection and data collection and physical parameters regulation of standing wave vibration based on mechanical control of pressure sensor and steering gear transmission)

Android Programing Education APP 2017

(Research and software development of dynamic programming teaching based on Andriod software Platform)

Vr-island First Person 3D Virtual Reality Game 2017

(Design and development of the first person VR game based on Unity3D Game Engine platform and experimental research on sensory Influence of virtual reality game)

Text Layout Multi-Functional Editor 2017

(program design and development of notepad formatting editor based on.net C# platform and theoretical research on the principle of notepad to realize text formatting processing)

Multifunctional Drawing Board and Function Dynamic Demonstrator 2017

(a theoretical study on the programming development, design principle and function realization mechanism of multi-function drawing editor and dynamic function display based on.net C# platform)

Baby Health Micro-Monitor and the Real Time Display APP 2017
(Experimental study on design and software development of intelligent monitoring platform for mobile Internet of Things based on Andriod Platform)

Lightweight Portable Hidden Bearing Mechanical Exoskeleton 2017
(Experimental study on principle design and physical fabrication of portable built-in hidden, lightweight, load-bearing and automatic correction mechanical exoskeleton based on ergonomics and physical mechanical force and force decomposition)

Lightweight VR Glasses 2017
(Research on the design of portable VR glasses with high curvature Lens based on geometrical optics and Mechanical Design)

Multi Layer synchronous Heat Preservation Water Heater 2017
(Design principle and experimental study of green and healthy water heater based on gravity dripping cycle, realizing heat transfer through dripping fusion, multi-temperature simultaneous insulation, ultra-low power consumption, refusing thousands of boiling water)

Design and Structure of PC + Android IOT System 2018
(Design principle and experimental research of universal and economical communication platform of upper and lower computer system based on mobile Internet of Things, and the communication principle of the platform can be applied to the construction of various upper and lower computer systems)

AI Experimental regulator based on Numeral Recognition 2018
(Design and experimental study of automatic experimental adjustment robot hand based on Design and Structure of PC + Andriod IOT System, combining digital recognition with machine learning and mechanical steering gear driving)

A Warm clothing for Health Monitoring and Treatment 2018
(Design and experimental study of mobile Internet of Things based on Andriod and mobile medical, a combination of various Wi-Fi sensors, mechanical vibration, micro current and electromagnetic wave, corresponding to the whole body acupoint magnetic therapy, whole body real-time monitoring, mobile health detection and auxiliary treatment of warm tights)

PyPaint-A Visual UI Editor of Python with Tkinter 2018
(Programming and development of generator for dynamic rendering and editing GUI based

on Python Tkinter framework and theoretical research on GUI rendering principle)

Directional Magnetic Suspension and Conductive Telescopic Rod 2018

(Mechanics and realization principle of directional magnetic levitation force based on limited Direction and scientific research on structure and mechanical principle and realization of conductive telescopic rod)

Open Source Contribution in Undergraduate Stage

1. GitHub open source project: **PyDraw**, the first author

The open source project warehouse address: https://github.com/JYLinOK/PyDraw

2. GitHub open source project: **YWeb**, first author

The open source project warehouse address: https://github.com/JYLinOK/YWeb

3. GitHub open source project: **YecPad**, first author

The open source project warehouse address: https://github.com/JYLinOK/YecPad

4. GitHub open source project: **YecPen**, the first author

The open source project warehouse address: https://github.com/JYLinOK/YecPen

5. GitHub open source project: **YecText**, first author

The open source project warehouse address: https://github.com/JYLinOK/YecText

6. GitHub open source project: **YDB**, first author

The open source project warehouse address: https://github.com/JYLinOK/YDB

7. GitHub open source project: **Way**, first author

The open source project warehouse address: https://github.com/JYLinOK/Way

8. GitHub open source project: **Way**, first author

The open source project warehouse address: https://github.com/JYLinOK/Way

9. GitHub open source project: **MyPlayer**, first author

The open source project warehouse address: https://github.com/JYLinOK/ **MyPlayer**

For more details, please visit：

https://github.com/JYLinOK or https://en.ydook.cn/opensources.html

Research Related Experiences in Undergraduate Stage

- In 2015, I studied with tutor Jing Peishu in Basic Physics Laboratory of East China Normal University, and received training in patent application and research projects
- In 2016, I studied with Associate Professor Guotu Shen from Modern Physics Laboratory of East China Normal University, conducted undergraduate scientific research project training, and successfully applied for project approval as the team leader.
- From 2016 to 2017, independently designed 15 scientific research and practice projects.
- 2017 under the tutelage of Professor Chen Shaoqiang from The School of Information and Electronics, East China Normal University, conducted undergraduate scientific research project training, successfully applied for project approval as the group leader.
- In 2017, I participated in the Student Independent Innovation Laboratory of Jilin University and conducted relevant training of scientific research competition.
- In 2017, I assisted classmates and students in the School of Electronics in designing and applying for three undergraduate projects in the meantime.
- In 2018, I studied with tutor Du Xiaoxia from Shanghai Key Laboratory of Nuclear Magnetic Resonance, East China Normal University, to conduct introductory training of scientific research knowledge of exploring brain's response to predicates in academic papers and brain functional imaging.
- In 2018, I studied with Professor Aimin Zhou from the School of Computer and Software, East China Normal University for academic papers and introduction to scientific research knowledge of artificial intelligence and genetic algorithm optimization.
- In 2018, I studied with Professor Xueming Ma from the School of Physics and Materials Science, ECNU, and learned academic paper writing and introduction to scientific research knowledge guided by physics innovation and physics thoughts.
- March 2019, completed the writing of the theoretical design collection on front-following. The collection is written in English. There are five sub-papers in the collection. The total number of words in the thesis collection exceeds 80000 words.
- In May 2019, I began to learn basic theoretical knowledge of Elasticsearch, database and search engine.
- In June 2019, completed my undergraduate thesis, which was about the design and construction method of Web cloud platform combined with MEI application and experimental exploration. The total is over 33,000 words.
- In July 2019, I completed the preliminary design and deployment of my personal website www.ydook.com.
- In August 2019, developed the open source server software framework YWeb based on Golang. Complete the YDB database program based on Golang language+JSON data

format design, with the function of adding, deleting, changing and checking.

- ✧ In September 2019, completed the design and construction of personal websites dh.ydook.com and mdh.ydook.com. And open source YecPad,YecPen and YecText three Windows applications based on C# design.

Research Experiences in 2020

1. AI based game social circle instant messaging App programming and design;
2. Research on the way of software design agile development and team efficient cooperation;
3. Java large-scale software programming and development based on Spring framework;
4. Independent server framework and independent database framework programming and development based on Golang language;
5. Research and development of wearable devices based on silver ion disinfection.

Research Experiences in 2021

1. Design and manufacture of ai-based ultrasonic transducer with intelligent feedback regulation;
2. Design and manufacture of rolling reusable multifunctional radio transmission equipment;
3. Study Python algorithm diagrams and write related books;
4. Research and development of fitness equipment power generation based on human power generator;
5. Research and development of air filtration device based on multiple filtration and negative oxygen ion purification;
6. Design and development of an interactive recruitment website based on social networks.
7. Designed and developed a hyperfine stable adjustable Nano Level Capacitor.
8. Designed and developed a multifunctional and reusable excitation coil structure instrument with complex structure variation characteristics.
9. Founded and maintaining the front-end generator framework Way. And founded and released the opensource media player Myplayer.