

Yunfan. Li

STUDENT · SOFTWARE ENGINEERING - DATA SCIENCE

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"More haste, less speed."

Education

Fudan University

B.S. IN SOFTWARE ENGINEERING

- TOEFL **112**; GRE **326+3.5**;
- GPA **3.25/4.0**
- 2018 whole year, **Teaching Assistant** for *Introduction to computer systems* (adaptation of CMU-CS213)
- Fall of 2018, **Exchange** at the **University of California , Santa Cruz (UCSC)**

Shanghai, China

Sep. 2016 - May. 2021

Writing

Combined priority and path planning with a double-layer structure for multiple robots

SECOND AUTHOR

SJTU

Dec. 2019 - Jan. 2020

- We propose a double-layer approach that combine priority planning and path planning to obtain optimal priority and lower paths cost. A modified A* algorithm is introduced to obtain collision-free paths considering priority configuration.

Honors & Awards

DOMESTIC

- 2017.03 **Third Prize**, Clover Software Development Innovation Competition
- 2017.04 **Star of the Future Award & Third Prize**, * CTF Information Security Competition
- 2017.11 **Third Prize**, Fudan University Scholarship

FDU

FDU

FDU

Skills

Deep-Learning Framework	pytorch
Programming Languages	Python, R, JAVA, C++, PHP, LaTeX
Languages	Chinese, English

Self Evaluation

YUNFAN IS:

- Highly interest-driven and self-motivating.
- Strong learning abilities;
- Pressure proof;
- Highly resolved and self-disciplined;
- Assiduous towards research.

Research Interest

[CURRENTLY]COMPUTER VISION AND ROBOTICS

- Self learned Stanford-CS231n.
- Went through Pytorch Tutorial.
- Had a little Kaggle experience.

Experience

RobotLab [under supervision of Prof. Qixin Cao]

SJTU

RESEARCH INTERN

Oct. 2019 -

- Worked with Haili Wang on path planning for multi-robot scene. Have a co-authored article.
- Now working on a project regarding the smart-rehabilitation-system. Fields related are human pose estimation and human action evaluation. Using some recommendation algorithms learned from school.

Future Network Innovation Laboratory [under supervision of Prof. Yang Xu]

FDU

RESEARCH INTERN

Apr. 2019 - Oct. 2019

- Researched into ways to model cache replacement algorithms to speed up simulations, to recognize request patterns and to find ways (mainly cache pollution attacks) to disrupt the locality of CDNs and corresponding countermeasures.

ChenXi Studio

Shanghai

BACKEND ENGINEER INTERN

June. 2018 - Sep. 2018

- Helped with the development of a project website that involves generating and returning user-information-related-pictures, had 600+ users.

System Security Lab [under supervision of Prof. Yuan Zhang]

FDU

RESEARCH INTERN

Sep. 2017 - May. 2018

- Researched into the topic of Javascript RFCs through vulnerable WebView component in android systems.

School Projects

the game of the arena chess

FDU

PROGRAMMING A

2016.12

- 100% completion, the realization of the JavaFX-based GUI, the corresponding user mouse and keyboard operation.

2048 games

FDU

OBJECT-ORIENTED DESIGN

2017.12

- A C++ QT-based GUI2048 game, using depth search to achieve AI functionality.

Image sharing website

FDU

INTRODUCTION TO WEB APPLICATIONS

2017.06

- A web interface. PHP + MySQL as backend, frontend HTML, CSS, JavaScript, user authentication with cookies, encryption using hashing with salt.

Chess AI

FDU

DATA STRUCTURE AND ALGORITHM DESIGN

2017.12

- min-max search, alpha-beta pruning, search layer: 4.

CLI multi-threaded chat room

FDU

COMPUTER SYSTEM FOUNDATION (2)

2017.12

- thread pool monitoring message, specify ip+port to achieve message transmission.

Calendar Notepad

FDU

SOFTWARE ENGINEERING (GROUP WORK)

2018.06

- This course focuses on design patterns and code refactoring. Responsible for backend development.

WebGL project

FDU

COMPUTER GRAPHICS

2018.06

- Draw a scene with WebGL, user keyboard event to achieve camera perspective change and omnidirectional movement
- Realized keyboard event control object visibility, realize keyboard event control transformation.

Chinese ancient poetry generation

FDU

NEURAL NETWORK AND DEEP LEARNING (GROUP WORK)

2018.06

- Based on TensorFlow framework, using LSTM.

New York Taxi Data Analysis

FDU

DISTRIBUTED SYSTEMS

2019.06

- Doing massive data analysis on Spark.

Turkish population data analysis

FDU

ADVANCED DATA SCIENCE

2019.06

- Doing massive data analysis on Spark. Machine learning algorithms applied.

Gomoku on piskvorkGomoku agent implemented with MCTS

FDU

ARTIFICIAL INTELLIGENCE (GROUP WORK)

2019.06 2019.06

- ADP; Threat-space search applied.

Movie recommendation algorithms for users

FDU

SOCIAL NETWORK MINING (GROUP WORK)

2019.06

- Using web crawlers to gather data (from Douban) and multiple recommendation algorithms to make reasonable choices of recommendation to users.

[Kaggle] Box office prediction

FDU

STATISTICAL MACHINE LEARNING (GROUP WORK)

2019.06

- Using LightGBM for prediction.

Bilibili Data Analysis

FDU

STATISTICAL MACHINE LEARNING (GROUP WORK)

2019.06

- Using web crawlers to gather data (from Bilibili) for Data Analysis on video uploaders.

Residential electricity usage data analysis

FDU

FINANCIAL TIME SERIES IN DATA MINING (GROUP WORK)

2019.06

- Using DTW for time series classification and LSTM for time series prediction. Data from Bureau of Shanghai Electric Power.
- Time series analysis on search engine searches for keyword "Big Data";
- Using web crawlers to gather data (from Baidu Index) to predict future market size of the "Big Data" industry.

Program Committees

2016-2018 **Member**, ***** CTF team of Fudan University

CTF

2019 Fall - **Minister of Academics**, Students' Union under department of Data Science, FDU

FDU

Related Courses

BASIC MATH & PHYSICS

- Advanced Mathematics A I & II
- Discrete Math I & II
- Linear Algebra
- College Physics B I & II
- Fundamental Physics Experiments

PROGRAMMING

- Programming A (Java)
- Data Structure and Algorithm Design (Python)
- Object-Oriented Programming in C++
- Introduction to Web Applications (PHP+JS+HTML+CSS)
- Software Engineering (Java)

ADVANCED COMPUTER SCIENCE

- Stanford-CS231n (self-learned)
- Neural Network and Deep Learning
- Artificial Intelligence (Reinforcement Learning)
- Introduction to Computer Systems I & II (CMU-CS213)
- Database and Implementation
- Large-scale Distributed Systems
- Advanced Data Science
- Social Network Mining

ADVANCED STATISTICS

- Statistics: Principles - Methods and R (I) & (II)
- Computational Statistics
- Statistical machine learning
- (Financial) Time Series in Data Mining