SHAOWEN WANG

No. 72, Jinyang South Road, Guanshanhu District, Guiyang City, Guizhou Province, China, 550081

Email: wangsw19@fudan.edu.cn; Tel: +86 18085073166; GitHub: https://github.com/Outsider565;

EDUCATION

Fudan University *Shanghai, China*   Sept/2019-Present

Major: Computer Science and Technology (Bachelor of Science) **GPA: 3.93/4.0; Ranking: 1/110**

Won National Scholarship of 2022, Top 2%	Oct/2022
Won the Honor of *Fudan University Model Student* for excellent academic performance in 2021-2022	Oct/2022
Won the Honor of *Fudan University Model Student Leader* in 2020-2021	Oct/2021
Won National Scholarship of 2021, Top 2%	Sept/2021
Won Uniqlo Scholarship of 2021 for outstanding academic achievement, Top 1% (770$)	Aug/2021
Won 2nd Prize in CUMCM, Top 20%	Dec/2020
Won Elite Liu Yongling Scholarship at Fudan University (1st Prize) in 2019-2020 academic year, Top 5%	Dec/2020
Won the Honor of *Fudan University Model Student* for excellent academic performance in 2019-2020	Oct/2020

RESEARCH EXPERIENCES

Information Extraction from chemical literature   July/2021-Present

Supervisor: *Ziheng Lu; AI4Science Lab, Microsoft Research Asia*

Profile: Use the combination of textual and graphical information to retrieve information and discover insights from chemical literature.

- Collect a dataset of chemical literature which consists of text, illustrations, abstract and human-labeled tags.
- Train a supervised model on the above dataset using a multimodal approach.

Decision-focused Summarization of News for Stock Market Prediction   Jun/2021-Aug/2021

Supervisor: *Chenhao Tan; Chai Lab at U of Chicago*

Profile: An optimized text summarization method developed by Longformer and GRU to assist stock traders' decision-making.

- Used the Longformer model to extract the semantic features from financial news texts.
- Processed the historical price with the GRU model and fused the information from different companies with self-attention, to identify the connection in between.
- Combined the price information and text information with MLP to predict the stock price changes.
- Designed a new loss function (reflecting decision faithfulness, decision representativeness and textual non-redundancy) for text summarization focusing on decision-making during the transaction.

Android Antivirus Sandbox Based on Deep Neural Network   Oct/2020-Jan/2021

Supervisor: *Yuan Zhang; System Software and Security Laboratory, Fudan University*

- Learned Android security-related knowledge, such as Android system components and interposition.
- Intercepted the system API sequence called by specific application and used deep learning methods to analyze the sequence to determine if it is malicious.

INTERNSHIP

Apple Software Engineer Intern *Apple Watch Team*, *Shanghai*   Jan/2022-Jun/2022

- Developed the internal analysis tool for anomaly detection using a modified isolated forest algorithm, for multimodality test using GMM, and for distribution guess using our fitting algorithm.
- Optimized the speed of internal analysis library.
- Took part in developing the web data visualization tool and deployed it in the Apple cloud.

Teaching Assistant of *Object-Oriented Programming* *Fudan University*   Feb/2022- Jun/2022

- Developed labs and course projects of the object-oriented programming course using C++ and GoogleTest framework.
- Hosted one-to-one Q&A sessions with first-year students.
- Recorded lecture videos covering different topics of C++.

Micro-AI Neural Network Camp *online (Details available on https://www.msra.cn/)*   Jan/2021-Feb/2021

- Read *the classic of Deep Learning* (by Aaron Courville, Ian Goodfellow, and Yoshua Bengio) and gained knowledge on various neural network algorithms e.g. SVM, Random Forest, CNN, RNN, transformer.
- Implemented several deep learning algorithms, including CNN, using NumPy.

EXTRACURRICULAR ACTIVITIES

Microsoft Opensource Study Community *President 5h/w*   Sept/2019-Jun/2022
- Organized activities including technical seminar, Hackathon and paper sharing sessions.
- Contributed to AI-EDU GitHub repo AI-EDU (microsoft.github.io)

TSI *Director of Department 5h/w*   Sept/2019-Jun/2021
- Built a non-profitable online education support project for remote teaching.
- Organized exchange activities, such as the Tibetan teachers' visit to Shanghai Elementary School.

PROFESSIONAL SKILLS

General Computer Skills:

Programming Languages: C/C++ (2ys), Python (4ys), Go (1y), Java (1.5 ys), System Verilog (1y)

Frameworks and Systems: Pytorch (1y), Linux (4ys), Git(2ys)

Hardware Experience: Raspberry Pi with GPIO, FPGA

Foreign Language:

TOEFL: 105 (R30/L29/S23/W23)

CET-6: 614