

Chuyi ZHAO

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393 Middle Huaxia Rd, Pudong, Shanghai | 201210

Education

ShanghaiTech University

2018.09 - 2022.07

- B.E. in Computer Science and Technology
- GPA: 3.42/4.0

Selected Courses: Computer Architecture, Operating System, Algorithms and Data Structures, Algorithm Design and Analysis, Artificial Intelligence, AI for Science and Engineering, Computer Graphics II

Honors & Awards

World's Second Place in the *International Conference for High Performance Computing, Networking, Storage and Analysis (SC21)*, Student Cluster Competition.

Academic & Research Experience

SC21 Student Cluster Competition Reproducibility Challenge (Ramble Reproducibility)

Advisor: Shu Yin | Tool: Python, Bash, (Spack, MPI)

2021.09 - 2021.11

- Deployed the framework from a previous SC paper, *A Parallel Framework for Constraint-Based Bayesian Network Learning via Markov Blanket Discovery*, constructing BN networks from large-scale data sets
- Performed the scaling experiments on Oracle using Python and Bash scripts

PromotionLens: Inspecting Promotion Strategies of Online E-commerce via Visual Analytics (Under Review)

Advisor: Quan Li | Tool: Python, JavaScript(Vue.js, D3.js), MongoDB

2021.07 - 2021.09

- Constructed a full-stack visual analytics system for analyzing the influence of promotion strategies on the online E-commerce from scratch
- Combined representative multivariant time-series prediction models and elaborated visualizations to demonstrate and interpret the influence of various promotion factors and support “what-if” analysis on promotions

Protein-Protein Interaction Prediction Based on Multi-Channel Input Deep Learning Algorithm

Advisor: Jie Zheng, Fang Bai | Tool: Python(PyMol), Bash(PBS), FreeSASA

2020.09 - 2021.04

- Processed PDBbind data sets of nearly 20,000, implemented a novel CNN framework to score the feasibility of Protein-Protein Interactions (PPI), trained a ResNet model with the prediction accuracy of **71%**, and made benchmark comparisons for evaluation

Selected Projects

Development of A Python-Based Game: Land Lord Off

Advisor: Kewei Tu, Xuming He | Tool: Python

2020.12

- Implemented a card game with three AI players: random, **A*** and **minimax-tree** algorithms-based, to compete with, refering to the Pacman Project structure in UC Berkly, CS188
- Optimized the algorithms to realize an improvement of **18%** on winning rate

Development of PintOS

Advisor: Shu Yin | Tool: C

2020.09 -2020.11

- Developed a tiny **operating system** based on C, ranking A level in the related course
- Implemented functions for clocking, stacking, system calls, file system management, and synchronization

Professional Experience

Shanghai Neogenint Intelligent Technology Co., Ltd

2021.07 - 2021.09

Software Developer Intern

- Achieved a server performance test using MLPerf and finished a report
- A series of programs deployed on Nvidia Jetson Nano, e.g. a real-time crack detector and an intelligent Nvidia Jetbot with GUI and modules like face recognition, voice prompt, etc.

Skills

Programming Language: C/C++, Python, Matlab, HTML/CSS, JavaScript, Java, LaTeX/Markdown, Bash

Frameworks: Numpy, Pytorch, Tensorflow, OpenCV, OpenGL