

Yilun Zhou

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EDUCATION

MS in Computer Science, Georgia Institute of Technology, GA

Est. Dec/2024

- Major GPA: 3.8/4.0
- Relative Coursework: ML, ML for trading, Intro to Grad Algorithms, Intro to Info Security, Network Security, Software Dev Process, Computer Network.

MS in Geotechnical Engineering, University of Florida, FL

Jan/2017

TECHNICAL SKILLS

- **Languages:** Java, Python, JavaScript, C, C#, Git, C++, PHP, HTML, MATLAB, Latex
- **Framworks:** React, Node.js, JUnit, Django, WordPress
- **Develope Tools/library:** MangoDB, Android Studio, pytorch, Numpy, Unity, WireShark, Postman, Kali.
- **Certificates:** AWS Practitioner, AWS Solutions Architect Associate(Late March).

RELATED PROJECTS

Developed Andorid application 'Job Comparsion'

Oct/2023

- Developed an Android 12-based app named 'Job Comparison' to assist users in comparing job offers with benefits across different indicators. Implemented algorithm for assessing and ranking jobs based on the different features. Executed the entire project cycle, including Project Plan, Use Case Model, Design Document, and Test Plan.
- Built by Android Studio, SQL by DBeaver, UML by Lucidchart and Manage by Github. [Github Link](#).

Developed Java command-line application 'txter' for text manipulation

Sep/2023

- Developing a command-line utility 'txter' written in Java development kit. 'txter' allows users manipulating contents of .txt file through variety of commands including exclude lines, keep lines, case insensitive, duplicate lines, reverse string and character orders. The utility is designed to allow the combination of these commands freely, offering agile and flexible text manipulation capabilities.
- Built by Java, Test by TSLgenerator and JUnit, Manage by Github. [Github Link](#).

Trading strategy based on ML

Apr/2023

- Applied both unsupervised and supervised learning to formulate a stock trading strategy focused on optimize cumulative returns. Strategy implemented by Liner Regression Learner, Decision Tree Learner, Random Tree Learner, Bagging Learner and Q-Learner. Indicators including PPI, CCB, ROC, RSI, SMA, TOS. Strategy learner achieved 6.32-fold increase in cumulative returns compared with Turkish stock market benchmark.
- Built by Python with Numpy, Pytorch, Pandas, Matplotlib and SciPy.

Developed communication networks

Jan/2023

- Construct and operate 'mini-internet' infrastructure, facilitating both Layer2 and Layer3 connections across 70 Autonomous Systems, comprising hundreds of network devices. Setup involved configuring IP, OSPF and BGP for routers and hosts. Implemented VPN configurations for secure communications, CLI and RKPI for enhance the security and authenticity of the routing information exchanged between ASes. Built by FRRouting software routing suite.

WORK EXPERIENCE

Structural Researcher, *China Architecture Design Research Group, China*

Aug/2017 - Dec/2022

- Led a team of 3 engineers in digital simulation and parametric modeling for infrastructures. Successfully designed and executed plans for over 10 buildings including the No.17 Bobsleigh track recognized by International Olympic Committee.

RESEARCH EXPERIENCE

- Research Experience:
 - **Research Assistant in Cybersecurity focusing on web security(Nov/2023-now);**
 - TA for undergraduate courses 'Geotechnical Engineering' and 'Adv Soil Mechanics'(2015/2016);
 - Research Assistant in Florida Department of Transportation (2016), focusing on saturate analysis.
- Certification and Achievements: PE(China), Certificate of Digital Analysis, Securities Qualification Certificate; 10+ construction project, 8 awards(2 national awards), 8 published articles, 1 published book, 2 National Founded research projects, 2 Organization founded research projects, one national patent.
- Scholarship: University of Florida Sports Scholarship, Beijing Jiaotong University Mao Yisheng scholarship
- Language Skills: English, Mandarin