Noah Xu

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SKILLS

Programming Languages: C++(preferred), Python(preferred), JAVA, C, Haskell, Kotlin.
Computer Skills: MySQL, Sklearn, Machine Learning, Web Scraping, Linux, Networking, Jenkins, CI/CD, Shell Script, Multi-Threading Programming using C++, Docker, Git, Raspberry Pi, QT, Selenium.

EDUCATION

Syracuse University, Syracuse NY (GPA: 3.5 / 4.0**)**   Sep. 2021 – May 2023
 Master of Science in Computer Science
 Core Course: OS, Algorithm, Computer Architecture, Structured Programming and Formal Methods.

Dalian Jiaotong University, China (GPA: 87.65/100.00 Ranking: 5%**)**   Sep. 2015 - Jul. 2019
 Bachelor of science in Software Engineering

WORK EXPERIENCE

TSMC | System Developer   July 2023-Present / AZ, United States
- Designed and developed automation software to replace the manual execution of repetitive tasks, resulting in an extraordinary increase in work efficiency by over 100%.
- Developed batch processing scripts to optimize the resolution of challenges encountered during the installation of customized operating systems, thereby boosting overall efficiency.
- Utilized Python to develop web scraping scripts, facilitating the collection of online information, followed by seamless integration of the acquired data into the existing database.

ShiShang Tucai Trading Co., Ltd | Trading System Developer (Devops)   Jan. 2020 – Jul.2021 / China
- Identified profitable arbitrage opportunities in the Chinese stock market by utilizing machine learning model and statistical model written in python.
- Developed a comprehensive backtesting framework from scratch using C++.
- Implemented multi-threading techniques to boost the speed of the backtesting framework by 4 times.
- Reduced codebase by 25% by developing shared libraries using Groovy scripts in Jenkins.

Lan Ou technology(Dalian) LLC │ Intern Software Developer   Jun. 2018 - Sep. 2018 / China
- Created a social media (WeChat) bot that enabled students to check their test scores easily.
- Built web scraping program to retrieve data from the target website, based on user input.
- Designed a web scraping script that utilized libraries such as beautifulSoup and PhantomJS to extract test score data from the target website.
- Assisted more than one thousand students in conveniently accessing their test grades.

PUBLICATIONS

- Xu Nuo, Wang Deguang, Zhao Yu, Wang Yu. *Public Opinion Analysis System Based on Machine Learning*. *Journal of Microcomputer Applications*, CN: 31-1634/TP, ISSN: 1007-757X.

RESEARCH EXPERIENCES

Recognition and automatically control by Raspberry Pi (Python)
- Created a Python project that utilized image recognition to control a game character on an iPhone screen through a Raspberry Pi.
- Utilized Opencv for image recognition and to calculate the duration of button presses.
- Utilized socket programming to transfer parameters from the Python program to the Raspberry Pi, and developed a Raspberry Pi program that controlled a servo motor for button presses.
- Published in GitHub and received 40+ stars github.com/xunuodfh/tiaoyitiao.

Public Opinion Analysis System Based on Machine Learning (funded project, Python), *Group Leader*
- Led the design of the project's overall architecture.
- Defined the data format, content, and database design for web crawling.
- Developed the crawler program and trained the emotional classification model using the LSTM algorithm.
- Published a paper. Click here to get funding file. No.13 is my project.