Ouyang Leiluo

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Education

Moscow State University 2019 – 2023
Applied Math and Computer science *Moscow, Russian Federation*
GPA 4.85/5.0

Skills

Tools and Languages C/C++, C#, Java, Python, Matlab
Communication Chinese(mother tongue), Cantonese, English(Toefl 96), Russian(B1)

Experience

Tencent Jul 2022 – Oct 2022
Software Development Engineer Intern *Shenzhen, Guangdong, PRC*

- Developed tools for break re-entry testing, enabling the interruption of re-entry testing of business modules.
- Designed and implemented an independent bank stake service construction program.

Shenzhen MSU-BIT University Feb 2022 – now
Research Assistant *Shenzhen, Guangdong, PRC*

- Conducting research on optimizing metamaterial properties using machine learning techniques.
- Studying the voice data of depressed patients using machine learning and statistical methods to aid in diagnosis and treatment.
- Analyzing the performance of fund managers using statistical methods.

Shenzhen MSU-BIT University Oct 2021 – Dec 2022
Teaching Assistant *Shenzhen, Guangdong, PRC*

- Provide hands-on instruction in C/C++ programming to junior students, including leading small group discussions and reviewing student work to provide feedback and support.
- Develop and grade assessments to evaluate student understanding of C/C++ programming concepts, and hold office hours to provide one-on-one support to students with questions or difficulties.

Projects

Electronic Taskbook on Unix Programming | *C++, Pascal, Unix, OOP, MPI, MPICH* Feb 2023

- Develope classes for parallel programming tasks, which included the necessary compilers and compile options, as well as executors and execution options.
- Utilized MPICH to process parallel computation tasks in the Electronic Taskbook system.
- Developed the classes into dynamic libraries, which were loaded by the project's kernel to process different task submissions.

Interrupt Reentry Test Tool | *Java, Python, JVM SandBox, AOP* Aug 2022

- Design and implement an interrupt re-entry test tool using Java and AOP techniques to non-intrusively interrupt program execution at specified breakpoints, allowing for in-depth testing and analysis of program behavior.
- Utilized JVM SandBox to safely and securely process runtime programs, collecting call links and other important data to aid in debugging and analysis.
- Developed a Python-based scheduler to streamline the setup and execution of the tool's runtime environment and breakpoints, improving testing efficiency and accuracy.

Distributed Caching System | *C++, epoll, LRU cache* Nov 2021

- Led the design and development of a distributed caching system utilizing LRU cache algorithms to improve data access speed and reduce pressure on back-end systems. The system included multiple servers and a master, with the master responsible for monitoring server health and scheduling cached data storage.
- Applied epoll technology to achieve multiple IO multiplexing, improving system concurrency and scalability while reducing resource usage.
- Implemented disaster recovery measures including standby servers and data backup, ensuring system stability and data integrity in the event of server downtime. Utilized the master server to facilitate data recovery and restoration after server reboots.

Publication

1 Ouyang L, Xu Y, Xie H, The Spread and Misclassification Prediction Model of Vespa Mandarinia Based on TD-IDF and SVM, AIAHPC(2022).

Honors and Awards

1 Mathematical Contest In Modeling (MCM/ICM) Finalist (Top 0.16% worldwide) Apr 2021

2 Third Prize, Bluebridge Cup Programming Competition Apr 2022

3 China Scholarship Council (CSC) Scholarship for Study Abroad Dec 2022

4 Second Prize, National University Mathematics Competition Guangdong Dec 2021