Yinuo Zhang

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Education

Stony Brook University 2017 – 2020
BS Computer Science & Applied Mathematics, GPA 3.63 *Stony Brook, NY*

Huazhong University of Science and Technology 2015 – 2016
BE Digital Media Technology, transferred out. *Wuhan, China*

Experience

Morgan Stanley June 2020 – Aug 2020
Summer Technology Analyst *New York, NY*

- Will be joining Morgan Stanley as Summer Technology Analyst in Application Development track.

File Systems and Storage Lab (FSL) Aug 2019 –
Research Aide *Stony Brook, NY*

- Worked on a project where we capture system calls of programs to accurately replay them independently without the original program and libraries while keeping the overhead in tracing as low as possible. It could be used for analyzing the application's behavior from many aspects, such as benchmarking on different systems, investigating potential security risks, finding bottleneck and more.
- Implemented *mmap* related system calls' tracing and replaying, contributed to paper reviewing and writing. A paper on this project is submitted.
- Supervised by Prof. Erez Zadok, sponsored by NSF as an hourly-paid employee.

Tencent June 2019 – Aug 2019
SDE Intern *Shenzhen, China*

- Completed a project that connects Tencent's financial management to banks directly, as part of the company's ERP system. It performs massive direct transactions, information retrievals and various investments on corporation scale. The project has been deployed.
- Migrated the above monolithic Spring project to Tencent Finance's own microservice framework.

Wanxiang Aviation July 2018 – Aug 2018
Software Engineer Intern *Xi'an, China*

- Worked on a smart lock IoT project based on Narrowband-IoT, connected the hardware (NB-Device) to China Telecom IoT platform and built a server on cloud to subscribe to device data for future application and issue commands to the devices. The project has been deployed.

Stony Brook University Sept 2017 – May 2019
Undergraduate Teaching Assistant *Stony Brook, NY*

- Worked as Teaching Assistant for CSE215 (Discrete Mathematics, 2 semesters) and CSE307 (Programming Languages, 1 semester).
- Taught weekly lectures for a group of 30 students on course matter for CSE215 for two semesters.
- Responsible for holding office hours, Piazza question answering, exam and homework grading, etc. Helped over 200 students to excel in their course work so far.

CEWIT June 2017 – Sept 2017

Research Assistant *Stony Brook, NY*

- Worked on project *EchoPrint* with Prof. Fan Ye, where we designed a two-factor authentication algorithm for mobile, incorporating both facial recognition and audio recognition to provide a more secure way of authentication.
- Implemented the facial recognition part of the Android prototype app. Worked with Java NDK (with OpenCV), Google Vision API and Android Studio.
- A paper with me as the third author on the project is currently under review for ACM Transactions on Mobile Computing.

Skills

Languages (sorted by familiarity)

- Fluent: Java, C, C++, MIPS
- Have used: Python, Javascript, Bash

Skill sets: Distributed Systems, Operating System, Full-stack Development, DevOps

Projects

xv6 Course project for CSE306 (Operating Systems)

- A linux-like operating system with modifications and features including memory/process/file management. Implemented/modified multiple system calls, drivers, user programs, etc. Based on the MIT xv6; worked with C, gdb, Valgrind, assembly, QEMU.

StackTraceException Course project for CSE356 (Cloud Computing)

- A fully functioning, scalable, distributed, and highly concurrent StackOverflow clone with microservice architecture, supporting most of the original StackOverflow features. It is capable of hosting over 200,000 users concurrently with 95% QoS under 30ms for all operations, including search queries, with the usage of 20VCPUs and 20G RAM for the entire service. Worked with MongoDB cluster, Cassandra cluster, ELK stack, nginx, NodeJS, Ansible, etc.

Prophet Wutang Course project for CSE392 (Natural Language Processing)

- A predictor that can predict the released date of an input Hip-Hop songś lyric, with an accuracy of 60% and recall of 69%. Trained on over 10000 Hip-Hop songs with RNN, worked with TensorFlow, LDA Analysis and Genius API.

Affiliations

Professional ACM, WiCS at Stony Brook

Others China Debate Education Association (Certified British Parliamentary Debate Adjudicator)