WENSI RONG

514 East 6th Street, NY, NY 10009 • (917) 250-0949
•wsrong97@gmail.com

EDUCATION

New York University, New York, NY Sep 2021 – now
Master of Science, Computer Science
(Expected Graduation: Dec 2023)
Enrolled Coursework: Foundational Algorithms, Programming languages, Operating Systems, Data-Communication and Networking, Machine Learning, Essentials of Probability, DevOps and Agile development, Honors Analysis of Algorithms, Database System

Wuhan University, Hubei, China Sep 2015 – Jun 2019
Bachelor of Science, Biological Sciences

Online Courses: Algorithmic Toolbox offered by UCSD; Data Structures offered by UCSD.

TECHNICAL SKILLS

Basics: Good at basic engineering principles, data structures and algorithms and operating system.
Languages: Java and C++
Experience with Python, JavaScript, HTML, Bash
Databases: SQL (MySQL), NoSQL (MongoDB, Redis)
DevOps: TDD/BDD, CI/CD pipeline, Git, Docker, Kubernetes

SELECTED PROJECTS

DevOps and Agile Methodologies May 2022 – Aug 2022

- Worked in an agile development environment with a team of 5 and developed RESTful services (Python) for the Inventory service part of a potential eCommerce web site.
- Used tool Zenhub associated with GitHub to do agile planning. Set up an automatic and consistent container in Docker for development and production.
- Designed and implemented a database back-end using PostgreSQL
- Developed the project under TDD/BDD test-driven scenarios and achieved 99% code coverage.
- Automated DevOps pipelines in IBM cloud Kubernetes with 0 downtime updates and auto scaling.
- Designed and documented REST APIs with Swagger following Open API 2.0 standard.
- Tools used: PostgreSQL, Git, Flask, JavaScript, HTML, jQuery, Ajax

Operating System Labs (C++) Jan 2022 – May 2022

- Implemented a simplified Linker for resolving symbol references and relocating object modules from specific-designed relocatable object files
- Simulated running of processes by Discrete Event Simulation and implemented the operation of an Operating System's Process Scheduler (6 algos in OOP style)
- Simulated operation of an Operating System's Virtual Memory Manager, implementing 5 classical page replacement algorithms in OOP fashion.
- Simulated and implemented the scheduling and optimization of I/O operations.
- Extensive error checking and abundant debugging and testing training.

Data-Communication and Networks Sep 2021 – Dec 2021

- Built a simplified authoritative server for a network of application
- Built a finite state machine implementation of the TCP connection protocol (3-way handshake) in Java.
- Implemented Software-Defined Networking (SDN) paradigm under standard simulated environment in Linux VM.

PAST EXPERIENCE

University of Science and Technology of China Sep 2019 – Jan 2020
Software Dev Engineer Intern *Hefei, China*

- Created image acquisition software in LabVIEW for whole-brain calcium imaging experiments
- Designed a switched double queue to solve OOM (out-of-memory) problem and achieved continuous capture of images, which greatly improved experimental coherence for biophysics research