

Yuanfang Zhang

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EDUCATION

University of British Columbia

Vancouver, Canada

BASc in Computer Engineering

2019-2024

- Final Year Grade Average: 91%
- Technical Electives: CPEN431(Distributed Systems), CPSC440(Advanced Machine Learning), CPEN442(Intro to Cybersecurity), CPEN411(Computer Architecture), CPSC436R(Randomized Algorithms)

TECHNICAL SKILLS

Programming: Java, Python, Shell Script, JavaScript

SDE: Databases (Redis, MySQL, Cassandra), Containerization (Docker, Kubernetes), GitOps (Git, CI/CD)

CS Fundamentals: Data Structures, Operating Systems, Networks, Machine Learning

EXPERIENCE

Python Development Intern

Jan 2023 – Aug 2023

Sony Pictures Imageworks

Vancouver, Canada

- Developed an enhanced DataManager, a desktop application for efficient data management.
 - Engaged with users to gather feedback and define specifications for new versions.
 - Optimized the client-side UI using PyQt, significantly enhancing the user experience.
 - Refactored the codebase, resulting in a 10x improvement in data fetching speed.
 - Built a gRPC backend server with a Cassandra database to support robust data storage.
- Contributed to the migration of GitLab CI/CD processes to OpenShift.
 - Created Docker images to standardize and manage the runtime environment.
 - Modified and enhanced Spdev, a tool for generating CI/CD configuration files, to support the migration.

Software Engineering Intern

Jul 2022 – Dec 2022

Sugon

Beijing, China

- Deployed and tested products on Linux clusters.
- Conducted research on Apptainer, K8S, and Deepfacelab; authored research documentation.
- Managed Docker and K8S operation services.

English Tutor

May 2019 - Aug 2019

Banrui English Education

Shijiazhuang, China

- Taught TOEFL, IELTS, SAT, GRE, and AP courses to high school and college students.
- Boosted average TOEFL scores by 10 points, receiving accolades from students and parents.
- Participated in student recruitment efforts.

PROJECTS

Distributed Key-Value Store | *Distributed systems course project*

Jan 2024 - Apr 2024

- Supported key distribution, fault tolerance, replication, and sequential consistency.

Carpals | *Capstone group project: a social carpooling mobile app*

Oct 2023 - Apr 2024

- Built a backend server with Flask and Firestore.
- Presented the product to instructors and clients.

Instant Chat Web-App | *Software construction course project*

May 2022

- Implemented chatroom creation, instant chatting, and login verification features.
- Developed the client using HTML, CSS, and JavaScript.
- Built the server using Express and Node.js with RESTful API.

Purrrductivity | *Online video learning system*

Jan 2022 - Apr 2022

- Implemented discrete cosine transform for video compression on an FPGA board using Verilog.
- Connected FPGA board to Wi-Fi for video transfer using an RFS card.

OTHER PROJECTS & EXPERIENCES

A brief summary of other smaller projects and experiences I have undertaken in the past:

- GitHub personal website: <https://charlesz921.github.io/> (2024)
- Research and implementation of DAO reentrancy attack in blockchain (2023)
- OS161 operating system course project (2021)
- Kaggle + PyTorch traffic sign recognition course project (2021)
- digital logic and microprocessor course project: implemented a microcontroller using Verilog (2020)
- Designed an exquisite keychain using Solidworks (2020)
- Participated in "International Education Experts Talk" Hosted by Sina (2019)
- Summer background enhancement project: machine learning + facial recognition (2018)
- Volunteer at Camford Royal School english summer camp (2014/2015/2016)

AWARDS

- Faculty of Applied Science International Student Scholarship (\$8,500)
- Trek Excellence Scholarship for Continuing Students (\$4,000)
- Outstanding International Student Award (\$20,000)

LANGUAGE

- Mandarin (Native)
- English (Professional)

PERSONAL STATEMENT

I am a team-oriented professional with strong technical skills and a willingness to help others. During my academic years, I frequently assisted classmates in debugging complex code issues. In the workplace, I consistently maintain a strong sense of responsibility and dedication, striving to drive innovative and efficient solutions.