Jiatang Zhou

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Education Background

Simon Fraser University	**British Columbia, Canada**
Bachelor of Science (with Distinction)	September/2018-April/2024

Major in Computing Science, Minor in Mathematics

- Key Courses: Principles of Compiler Design; Computability; Data Communications/Networking; Database System 2; Operating System; Distributed Systems
- GPA: 3.77 in Year 4

Simon Fraser University	**British Columbia, Canada**
Doctor of Philosophy in Computing Science	May/2024-Present

Relevant Working Experiences

OneCup AI	**Burnaby, Canada**
Data Engineer	January/2022 - September/2022

- Attack the tracing points on the animal's skeleton. Output points' position in 2D space.
- Generate images that contain certain animal(s) to simulate the real photo image.
- Build the UI that allows users to select different animals/maps/weathers/camera paths to improve image variance.

SFU Data-Intensive Systems Lab	**Burnaby, Canada**
Research Assistant	April/2023 - August/2023

- Compare different lock design's performance in C++.
- Modify lock implementation in OpenJ9

SFU CMPT 300 Operating System	**Burnaby, Canada**
Teatching Assistant	April/2024 - August/2024

- Holding office hour for students.
- Grading homework assignments

Relevant Project

Biliby Compiler

Design a programming language and write a compiler for it.

- Group symbols from symbol stream to create tokens.
- Parse the tokens to build Abstract Syntax tree.
- Infer variable types by traversing the AST.
- Generate target code file which can be run on Abstract Stack Machine.

YASE Database System

- Implement Skip list for indexing.
- Design read/write lock manager handle concurrency control.
- Using buffer manager to cache data and flush to disk

TAGE branch predictor

- Use ChampSim trace-based function-first simulator to trace branch mispredictions
- Designing a TAGE that can be easily expanded with global predictor and bimodal local predictor.
- Modify the parameters and compare performance with the original TAGE of the paper.

Interests

Database System
Concurrency control
Algorithm

Skills

Programming language: **C/C++, Java, Python**, Html/CSS/JavaScript
Frameworks and Tools: NumPy, Spring/SpringBoot, OpenCV, Git,
Database: MySQL, SQL Server, Redis
Operating Systems: Linux, Windows

Publications

None