

KAI YI (DAVID) ZHANG

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Bachelor of Computer Science

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EXPERIENCES

Software Development Engineer Intern

Amazon Web Services (AWS)

September 2022 – December 2022 Seattle, WA, United States

- Implemented the foundation of a migration plan to a new billing system to be used by NAT gateways in every available AWS region
- Reducing operational overhead by a total of roughly 500,000 U.S. dollars
- Demonstrated the ability and cautiousness to work with code that can potentially have large-scale impacts on millions of customers
- Carefully designed and tested code to guarantee no downtime for the migration and customer billing will not be affected
- **Tools:** Java, Git, Amazon Internal Tools

Software DevOps Intern

Sony Interactive Entertainment (SIE)

May 2022 – August 2022 Waterloo, ON, Canada

- Maintaining existing pipelines and CI/CD infrastructures
- Created micro-service to improve server efficiency by providing up-to-date data using APIs instead of retrieving manually edited data on disk
- Created a custom tool to find edits, deletions, and additions between configuration files to assist engineers when they are updating servers
- **Tools:** Jenkins, AWS, Kubernetes, Docker, Groovy, Python, TypeScript, JavaScript

Game Programmer

Behaviour Interactive

September 2021 – December 2021 Montréal, QC, Canada

- Developed features for an upcoming sequel to a AAA game franchise
- Implemented improvements across multiple gaming platforms
- Implemented the save game feature on PlayStation 4 and 5
- Accelerated development through improving the QA team's efficiency by adding new and modifying existing platforms on the team's CI/CD system
- **Tools:** Agile, C++, C#, Kotlin, Microsoft GDK, PlayStation SDK, Nintendo SDK

Software Developer

Vital Images

January 2021 - April 2021 Waterloo, ON, Canada

- Worked on Vitrea® Connections, a medical imaging connection software that helps radiologists access patient data efficiently
- Implemented the ability to remove user data from Vitrea® Connections' database when requested by the user
- Developed fixes to improve storage efficiency by avoiding unnecessary calls to costly backend procedures
- **Tools:** Agile, Java, Python, TypeScript, JavaScript, NoSQL

PROJECTS

WAT-DFS

University of Waterloo

January 2022 - April 2022

- Implemented a distributed file system that supports the download/upload model for the clients to reduce server stress
- Constructed functionalities to provide file atomicity, concurrent access, and freshness checks for the download/upload model
- **Tools:** C++, Python

HIGHLIGHTS

- Will be graduating with Bachelor of Computer Science at the University of Waterloo in 2023
- Advanced in: **C++, C, Java, Python, Git**
- Familiar with: **C#, HTML, CSS, SQL, Kotlin, Bash, TypeScript, JavaScript**
- Experienced in working with large-scale software development
- Capable of quickly adapting into new development environment that uses different tech stacks
- Fast learner, good communicator and a great teammate

DEVELOPMENT TOOLS

AWS Kubernetes Docker
TeamCity Jenkins Confluence
Jira Perforce Helix Core Bitbucket
GitHub Bootstrap 5 Unity
Microsoft GDK PlayStation SDK
Nintendo SDK Windows Unix
macOS Linux

EDUCATION

Candidate for Bachelor of Computer Science

University of Waterloo

September 2018 – April 2023

Relevant Courses:

- Data-Intensive Distributed Computing
- Applied Cryptography
- Distributed Systems (C++)
- Introduction to Artificial Intelligence (Python)
- Introduction to Database Management (SQL)
- Object-Oriented Software Development (C++)
- Operating Systems (C)
- User Interfaces (Java)

INTEREST

- Distributed Systems
- Cryptography
- Artificial Intelligence
- Video Games
- Cloud Computing