# Zejia Cai

## Junior Software Application Developer

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Vancouver, BC

Highly motivated and recently graduated software engineer with strong problem-solving skills and a commitment to excellence, eager to leverage academic knowledge and practical project experience to contribute effectively to a dynamic and collaborative team as a Software Engineer at J&M Group.

#### TECHNICAL SKILLS

- Proficient in C/C++, C#, Python, Java, Kotlin, SQL, and more
- Work experience with serverless technologies: Google Cloud Function/Run, and AWS Lambda
- Knowledge and hand-on experience with microservices and event-driven architecture
- Experience with Client-server architecture, Networking
- Experience with version control systems such as Git
- Proficiency in Windows/Linux/Unix operating systems and shell scripting
- Hand-on experience with database administration, database installation and security

#### TRANSFERRABLE SKILLS

- Good communication and team management skills by working in fast paced environments
- Strong problem solving and analyzing skills developed from coursework and self-learning projects
- Capable to quickly learn leading-edge technologies
- Tri-lingual in English, Cantonese, and Mandarin

#### WORK EXPERIENCE

#### SFU - CS Research Assistant

Jan 2024 - current Burnaby, BC

- Designed and implemented a new software tool in **C#** to help users to add **human-interactive** components to their 3D models in Rhinoceros
- Performed **Agile software development**, incorporating **UX design** and **OOP methodologies** to enhance user experience and maintain code quality
- Demonstrated **problem-solving skills** and ability to **quickly learn and adapt** to new technologies, including 3D models, C#, Rhinoceros, and Grasshopper
- Collaborated with a multidisciplinary team of graduate students to develop the software based on their needs

#### PROJECTS EXPERIENCE

#### **Educational Resource Website - Architect**

Feb 2024 - Apr 2024

- Designed and developed a high availability and high scalability web system in Microservices
  Architecture using the Spring Boot framework
- Implemented the system to be deployed using **serverless technologies**: Google Cloud Run, and Google Cloud Functions
- Utilized load balancing and service discovery mechanisms with Nacos to ensure a multi-region deployment of the system
- Adapted resiliency patterns to ensure fault tolerance and high availability

### Rapid Medical Imaging Examination - Creator

Sep 2023 - Dec 2023

- Designed and built an Al-based multi-task detector website for medical image analysis in Python
- Implemented a breast tumor classification tool and bone fracture classification tool. Also merged COVID-Net model into the platform to be a COVID detection tool.
- Collaborated with a team of 5 to ensure timely project delivery while adhering to best practices.

## Chat Now Mobile App - Creator

Dec 2022 - Apr 2022

- Developed the conceptual framework, functionality, and features of the app
- Designed a robust, efficient, and scalable database schema following database normalization
- Utilized Redis for caching and MySQL for storing chat records and user information
- Implemented the backend services of the software using Kotlin: notification service, cloud database, local database and communication system

## **Deny and Conquer Game - Creator**

Jul 2023 - Aug 2023

- Implemented a multi-players game that built on a client-server architecture that uses TCP in Python
- Designed the **multi-threading architecture** to handle multiple client connection and **locks** to manage shared resources

#### **EDUCATION**

## Simon Fraser University - B.S., Computer Science

Sep 2019 - Apr 2024

8888 University Dr W, Burnaby, BC V5A 1S6

#### Relevant courses

- Web Systems Architecture Serverless
- Data Communications and Networking
- Database Systems
- System Security and Privacy
- Software Development