Zejia Cai

**Junior Software Application Developer**

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*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 **AI-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