

# Zhengkun Lou

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## Education

**York University** Toronto, Ontario, Canada  
Specialized Honors Bachelor of Computer Science 09/2019 - 08/2023  
**Core Courses:** Software Design, Advanced Data Structures, UI/UX, Website design, Design and Analysis of Algorithms, Advanced Object Oriented Programming, Machine Learning and Pattern Recognition, Operating System Fundamentals.

## Projects

**B2C Shopping Website** **Duration:** 2022.09-2022.12  
**Tech Stack:** Web API, Typescript, Alibaba Cloud, HTML5, CSS3, MySQL, curl, MVC, draw.io  
**Responsibilities:** Core UI elements by JavaScript using HTML5, CSS3, Typescript, and Bootstrap to ensure functionality and the best user experience. Core backend components written by Java using Web API and MySQL with local database attached. The website covered processes from registration to payment and deployed on Alibaba Cloud, accessible via Internet, including IP rate limiting and the addition of a verification code to enhance website security from attack.

**Android Assistive Input Application for Disabilities** **Duration:** 2023.01-2023.04  
**Tech Stack:** Kotlin, API, XML, Java, JUnit, Maven, Automation test, Google Play Store, Android Studio, Android SDK, HCI  
**Responsibilities:** Design, develop and test. Aiming to find an easier and faster way to help people with disabilities to typing. Specially designed UI elements for disabilities without traditional keyboard by using XML and Kotlin. Core backend components using Java, Kotlin, Android SDK, Hardware and Storage API. Application passed our JUnit test and Maven test also packed, signed, and distributed into 8 groups with 6 participants for experiments. In comparison with the SAK keyboard, our application demonstrated higher accuracy (approximately 10% improvement) and faster speed (around 30% faster), collected data analyzed by Jupyter.

**iOS Software Designer** **Duration:** 2021.03-2021.05  
**Tech Stack:** UI/UX, Figma, Automation test, XCode, TestFlight, Java  
**Responsibilities:** Attend testing and releasing with a team of 4 in iOS app development. Involved in writing Unit test cases and performance test cases by Java. Develop and discuss logical UI/UX design with development team, by using Figma and Xcode simulator. Application 100% capable on any iOS device upper than 12 with proper display layout. The application was privately released through TestFlight. Application designed for Yorku students to check restaurant locations and operating times, saving time for eating between lectures.

## Experience

**System Architecture Deployment** 05/2018 - Present  
**Work field:** Configuration, deployment, and troubleshooting custom hardware specifications by individual customer requirements across most operating systems, from hardware configuration to operating system boot files coding, ensuring smooth system ability and stability. Build Machine learning platform by installing and debugging for IDE and Libraries, such as PIP, TensorFlow, Shell, Cuda and more.  
**Achievements:** Strong problem-solving ability and information-gathering ability by debugging from hardware failure to software crash, patient to every fault message, machine, and customer, also made deep understanding of the entire system development lifecycle.

**Gaming Cloud Infrastructure Building and Maintenance— Founder** 09/2023 - 01-2024  
**Tech Stack:** Node.js, VUE, Alibaba Cloud, Linux Terminal, LAN, VMware, DBMS, Navicat, WinSCP.  
**Work Field:** Build, modify, and patch the Dungeon Fighter server, deployed on Alibaba Cloud Service. Created noncommercial copies and distributed them to friends. Worked daily on cloud security, account management, token purchases, and reducing latency. Responsible for packaging, delivering, and backing up the database to ensure uninterrupted services during hardware failures. Additionally, established a locally accessible server via LAN.

## Skills

**Tech Stack:** Java, C, Web API, HTML5/CSS3, JavaScript, TypeScript, Python, Ajax, PHP, Shell, Latex.  
**Tools:** Github, Bootstrap, Git, Eclipse, Node.js, React, Android Studio, Spring Boot, VSCode, Overleaf.  
**Design Patterns:** MVC, Object Oriented Programming, Observer, Django.  
**Data:** MySQL, Jupyter, TensorFlow, PyTorch, Cuda.