Ke Li

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My WebPage | *Github* | *Linkedin*

EDUCATION

University of Toronto, *ON, Canada*   **2023 – Present**
Master of Engineering
- **Major Area of Focus: Computing Engineering & Identity, Privacy and Security (IPS)**

University of Alberta, *AB, Canada*   **2019 – 2023**
Bachelor of Science
- **Awards:** *Dean's Honor Roll (22-23)*
- **Major Area of Focus: Computing Science**
- **Coursework:** *Operating System, Computer Networks, Computer Architecture, Web Development, Mobile App Development, Interface Design, Database Management, Machine Learning*

WORK EXPERIENCE

Full Stack Engineer Intern (4 months)   **Jan - Apr 2023**
Alberta Language Technology Lab (ALT Lab) Edmonton, Canada
- Participated as a team member in the development of a web-based visual dictionary application, utilizing advanced technical skills in Django, React, D3, and Docker to provide English and Cree word definitions with the ability to expand and collapse semantic categories for improved clarity.
- Implemented advanced **React** and **D3** architecture to create an interactive, visually appealing front-end display of all the words in the dictionary.
- Adopted **Docker** for streamlined continuous deployment.
- Used MKDocs to edit online documentation, providing stakeholders with easy access and understanding of the project.

Backend Engineer Intern (4 months)   **May - Aug 2021**
Nandou Six Star System integration Co., LTD Wuhan, China
- Contributed as a member of the backend development team for the Dongfeng Pilot Autopilot project, using Spring and Hibernate to implement interfaces and connect to the databases.
- Deploying endpoints to the company's online server with the use of **Gunicorn** and **Nginx**.
- Experienced in data analysis, manipulation, database documentation writing and maintenance.

PROJECT EXPERIENCE

Web Application Development - Social Distribution   *(Github page)*   **Sep- Dec 2022**
- Contributed as a member of a four-person team to develop a web application, using Django, React, and PostgreSQL to facilitate user engagement and social sharing, including the ability to share posts, comment and like posts, and follow preferred users.
- Organizing team meetings, arranging peer coding sessions.
- Implemented user interface designed using Figma.

Android Application Development-Habot   *(Github page)*   **Sep-Dec 2021**
- Collaborated in a group of five to develop an android application that aims to help people record their daily habits, applied solid programming skills in Android Studio and Java to realize a series of functions,including adding, deleting, changing habits, and presenting the habits of the day separately.
- Designed the user interface of the software, drew UML diagrams, and integrated google APIs to allow the app to obtain the permissions of the phone's camera and photo album and users' real-time locations.
- Used Firebase to store online data, allowing different users to log in to their accounts on different devices.

Web Application Development - Vocabulary Explorer   *Documentation*   **Jan - Apr 2023**
- Participated as a team member in the development of a cutting-edge web-based visual dictionary application, utilizing advanced technical skills in Django, React, D3, and Docker to provide comprehensive English and Cree word definitions with the ability to expand and collapse semantic categories for improved clarity.
- Implemented advanced React and D3 architecture to create an interactive, visually appealing front-end display of all the words in the dictionary.
- Adopted Docker for streamlined continuous deployment, ensuring efficient updates and maintenance of the application. (*Video demo*: ▶ Vocabulary Explorer)

Linux OS Application - CLI-Shell   *(Github page)*   **Sep - Nov 2022**
- Individual project. Designed and developed a custom command-line interface utilizing C programming language and Linux operating system to enhance user interaction and efficiency. Demonstrated mastery in software development by implementing functionalities such as process inspection, creation, termination and resume.

Distributed System Application - Socket_Server   *(Github page)*   **Nov - Dec 2022**
- Individual project. Developed a cutting-edge client-server interaction simulation utilizing advanced C programming and socket API. Demonstrated exceptional software engineering skills by enabling the server to process and respond to multiple client requests and information concurrently with high efficiency through multi-threading.

SKILLS

- C++, C, Linux, Socket Programming, RISC-V, Scripting experience with Bash
- Experienced in writing TCP and Ethernet Protocol
- AWS, Nginx, Gunicorn, Apache, Heroku
- Python, Django, Javascript, React, D3, Git, HTML, CSS, Figma, Android Studio