Ri Hong

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EDUCATION _____

University of Waterloo   **Bachelor's of Computer Science (Co-op) · 2022 – 2027**
- Specialization in Digital Hardware and Artificial Intelligence
- 3.9 GPA, 2x Term Distinction

SKILLS _____

Languages: Python, C/C++, Java, HTML/CSS, JavaScript , Racket
Technologies/Tools: ReactJS, Node, Git, VSCode, Android Studio, Arduino, IoT, Bluetooth(GATT, BLE), XCode, Raspberry Pi, Serial Hardware Communication, Photoshop, Linux Shell, Bash, Google Analytics

WORK EXPERIENCE _____

Microgreen Solar Corp.   **Software Developer | Toronto, ON | Summers 2019-2022**
- Implemented an HMI GUI using C to display key information about a battery (currently being used by **100+ customers**)
- Developed an iOS bluetooth app to send and retrieve data from a battery management system to allow customers to view battery information such as voltage, current, charging status, and temperature
- Developed an Android app to interface with a raspberry PI to send and receive data to an AWS server
- Worked on a frontend React website to read data from an AWS server and display it to the user
- Developed an Android app to communicate via bluetooth with an ESP 32 microcontroller which read data from an inverter using serial communication

PROJECTS _____

Ingredify🔗   **React Native, Cohere, MongoDB | May 2023**
- A mobile app that allows users to take a picture of an ingredients list, then provides extensive information about ingredients, including health effects and allergenic properties
- **Cohere API** used to generate descriptions, classify ingredients, retrieve the best explanation from our MongoDB database, and provide the summary of an ingredient
- Submitted to MetHacks 2023, won **Best Use of Cohere (1 out of 35 teams)**

Bill in Bytes🔗   **React Native, Google Cloud Vision | May 2023**
- A practical application designed to streamline the management of paper receipts by converting them into digital records, enabling easy tracking of expenses and simplified tax filing
- Integrated **Google Cloud Vision API** to incorporate **optical character recognition (OCR)** technology, transforming physical receipts into digital data
- Submitted to GryphHacks 2023, won **Best UI/UX and People's Choice Award (1 out of 20 teams)**

Blockmind AI🔗   **LangChain, Next.js, Ethereum | June 2023**
- Blockmind AI is an **AI assistant** developed to simplify the intricate blockchain technology and make it accessible for all users
- The AI chat interface provides an array of blockchain services, ranging from minting NFTs and transferring tokens to analyzing market trends and auditing smart contracts
- The technology behind the AI is a **GPT-4 LLM**, combined with **LangChain**, which provides a robust model for training
- Integrates Gnosis and Metamask for functions like sending, swapping, and funding, offering users an all-encompassing solution for digital transactions
- Submitted to ETHGlobal Waterloo 2023, won **Worldcoin Best AI Use Case ($2500)**