ANDRE KE

Toronto ON

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Education

University of Waterloo   **Sep. 2023 – May 2028**
Candidate for Bachelor of Applied Science in Systems Design Engineering   *Waterloo, ON*

Experience

Recreation Software Support   **Jan 2024 - Apr 2024**
City of Brampton   *Brampton, ON*
- Performed User Acceptance Testing on beta software releases through the creation of Python Selenium scripts, resulting in the catching of over 10 bugs prior to public release to ensure reliability in a system of over 500,000 accounts.
- Initiated the development of a modular Python desktop GUI with tkinter to easily launch and view results from Selenium tests for non-technical staff to use.
- Created reports for sales and staffing at facilities using Power BI, Excel, and Microsoft SQL servers to aid facility management in decision making of staffing.

TSCAC   **June 2023 – August 2023**
Summer Camp Coordinator   *Toronto, ON*
- Coordinated planning, camp execution, and communication between 15 staff and volunteers using Google Workspace.
- Organized engaging lessons and activities that considered time, scheduling, and cost constraints.
- Communicated issues to supervisors and resolved them as a team during daily debriefs to continually improve camp through the PDCA cycle, resulting in higher camp satisfaction ratings.

Projects

BlockBrain | *React, Express, MongoDB*   **Summer 2024**
- Created a Full-Stack Blockchain education website that gamifies learning blockchain with NFTs and AI.
- Utilized MongoDB to store user data, Cohere AI to grade answers, and MintBase to create NFT drops

Shelter | *React, Express, MongoDB*   **Winter 2024**
- Created a Full-Stack React site utilizing RESTful APIs, **MongoDB** and **Express** to display information on services and occupancy of shelters within the Toronto Shelter System from the past 7 days.
- Collected and cleaned data using Python and Pandas prior to uploading to a MongoDB server.

Grocery Run | *React, Vite, Tailwind, Figma*   **Fall 2023**
- Created a grocery app in a team of 4 that utilized **React**, **Vite**, and TailwindCSS to display data from a FastAPI to find the best and nearest grocery deals for students.
- Utilized **Figma** to collaborate with teammates to create a simple and intuitive UI.
- Personalized results using Google Maps API, Cohere Semantic Search, and OpenAI's GPT API.

Home Monitor | *Raspberry Pi, D3.js, Flask*   **Summer 2023**
- Created a site that uses readings from a BME680 sensor and **Raspberry Pi** to visualize air quality.
- Utilized the **D3.js** library for data visualization of readings, TinyDB to store readings, and **Flask** to implement **RESTful** services and APIs.

Hospital Management | *Java, Java Swing*   **Winter 2022**
- Led a team of 4 members to create a hospital management program that keeps track of patient records and appointments using Java and Java Swing.
- Understood and implemented OOP structures using UML diagrams and fundamentals of Data structures and Algorithms.

Extracurricular

UW Midnight Sun   **Fall 2023 – Present**
Electrical Hardware Subteam - Harnessing   *University of Waterloo*
- Created wiring documentation for a motor control board on Excel using Altium Designer to view schematics and used Jira to communicate progress with the team.

Technical Skills

Languages: Python, Java, C++, HTML/CSS, JavaScript
Technologies/Developer Tools: React, Vite, VS Code, Android Studio, Git, GitHub, Figma, Jira