RUPENG (ANDY) NA

+1 226-504-2688   rna5@uwo.ca
1005-40 Alexander St Toronto M4Y 1B5

EDUCATION

Western University   Sep 2021 - Aug 2022
Master of Engineering in Electrical & Computer Engineering, Software Engineering   London, ON, Canada
- GPA: 3.7/4.0
- Relate course: Machine Learning, Data Analytics, Cloud Computing, Web Application Develop.

Western University   Sep 2016 - Apr 2021
Bachelor of Science, Honors Specialization in Computer Science   London, ON, Canada
- Relate course: Object-Orientd Desgn & Analysis, Database, Computer Network, Game Design.

WORK EXPERIENCE

Fast Approach Inc.   Nov 2020 - May 2021
Web Developer, Intern   Toronto, ON, Canada
- Collaborated with the development team to develop the new official website in HTML, Javascript, CSS, and MySQL, ensuring optimized performance and extensibility.
- Hosted the website on WordPress and deployed it to GoDaddy.
- Applied internal linking, keyword triggers, inverted pyramids, and integrative lists aim to maximize readability for active viewers.
- Enhanced the performance by reducing the website response time by about 0.4s.

Lenovo Research   May 2019 - Sep 2019
Backend Developer, Intern SLIIC   Beijing, China
- Applied agile methodology, Lenovo wearable healthcare devices and Lenovo Data Center to build a comprehensive healthcare solution.
- Actively collaborated with the team to develop backend and dashboard services for Lenovo ECG Platform based on Java, Spring Cloud, Docker, and MongoDB. Achieved API management via Postman.
- Collaborated with the QA team to test the device's accuracy and latency and optimized the algorithm according to the QA team's requirements.
- Established the digital health system based on user wearable devices and ECG dashboards. After testing and optimizing the algorithm, the heart rate accuracy of the product was 10% higher than the competing products.

PROJECT EXPERIENCE

Netflix Movies Recommend System   Sep 2021 - Dec 2021
Data Analytics Foundation [ECE 9063]   London, ON, Canada
- Developed the model based on a filtering system after comparing the accuracy between the memory-based collaborative filtering system and item-based collaborative filtering system and decided.
- Applied various forecasting approaches (k-Nearest Neighbors, deep learning model) using Python and the plotting library Matplotlib to visualize the result.
- Found out the model-based CF's RMSE was 0.7674, which indicates good performance.

Adaptive Difficulty Adjustment in Unity   Oct 2020 - Mar 2021
Thesis Project [CS 4490]   London, ON, Canada
- Applied Automatic Dynamic Difficulty (ADD) to adjust the game difficulty and gameplay according to the player's level.
- Organized the supervisor's previous work on ADD and tested it on the new **Unity** environment.
- Developed the ADD system by **C#** and embed it into various games.
- Achieved portability and reusability of ADD System by using design pattern.

Plant Growth & Environment Monitoring System   Sep 2019 - Dec 2019
Object-Oriented Design Analysis [CS3307]   London, ON, Canada
- Developed a monitoring system capable of detecting and recording temperature, soil moisture, pH values, duration of natural sunlight, and assessment of suitability for plant growth based on environment.
- Established system integration using **C++** with design patterns to process input information and provide adjustment recommendations with reference to the database of plant-specific information written in **PostgreSQL**.
- Achieved real-time transmission of soil moisture and temperature sensor data to Raspberry Pi by applying design patterns.

SKILLS LIST

Technical Proficiency Java, Python(includes Pandas, Matplotlib, , Web Scraping), C#, C++, JavaScript, React, HTML, CSS, Apache Spark, Spring Framework.
Operating System Mac OS, UNIX, Windows.
Others Git, Docker, Jupyter Notebook, GCP, MySQL, PostgreSQL, MongoDB, WordPress, GoDaddy, Postman, Excel, Power Point.
Language Fluent in English and Mandarin.