GRACE HE

• 528 Lancaster Street West, Kitchener • yixuan.he@uwaterloo.ca • 647-937-7782

EDUCATION

University of Waterloo Waterloo, ON
Bachelor's of Computer Science, Honors, Business Option Jun. 2018
University of Waterloo President's Scholarship 2015
Relevant Coursework: Algorithms, Numerical Computation, Intro to Machine Learning, Computer Networks, Distributed Systems, Differential Equations, Mathematical Statistics

WORK EXPERIENCE

Amazon | Software Engineer | Toronto, ON Aug. 2021 - Present
- Designed, developed and launched notification modules in a microservice architecture, internal APIs for event-based notification between new service and existing internal services for Amazon Advertising using Java, TypeScript, AWS Lambda CDK enable meeting host to send out email notification with meeting agenda
- Deployed herd graphs through Orca Graph deployer to update task workflow to assign tasks, route tasks, and create tasks based on the initiated workflow using managed policies which result in better productivity for ads designers
- Created and reviewed drafts of low-level designs and analysis docs, including implementation and maintenance plan to meet project goal, client's need and the timeline for a set of microservices; saved 10 hours of development
- Developed back-end localization functionalities for the Bazaar team to launch product that supports 20 languages, increasing the business's potential revenue by $5000 per year

Luci.AI Inc. | Software Engineer | Toronto, ON May 2020 - Apr. 2021
- Built RESTful APIs for real-time temperature detection system, improving employees' safety by 60%
- Refactored and implemented token-based API authentication using Redis caching and JSON web token to reduce code complexity and facilitated maintenance
- Refactored back-end APIs, solving bottleneck performance issues with MongoDB pagination, leading to a 40% decrease in initial load times, and improved the overall report API performance and customer experience
- Designed and developed real-time dashboards and reporting systems to reflect user temperature measurement events and safety ratio using Apache Echarts and Google Charts in Vue; it impacted 2K users
- Built Docker with Cron job to run an hourly backup script and upload the backups through FTP to the file server; improved the productivity of the whole team by 30%

NexJ Health Inc. | Software Developer | Toronto, ON Aug. 2019 - Mar. 2020
- Built and maintained cloud-based NexJ Connected Wellness and NexJ Health Coach by upgrading API versions for the authentication service
- Led two people to refactor test modules to remove test dependencies; reduced deployment time by more than 40%
- Refactored the scheduled emailing system for appointment reminders and notifications, customized email formats with the reusable generic template; received great feedback on postal cards from patients
- Increased translation efficiency by 60% with regular expressions to automate data parsing and simplify analytics

PROJECT EXPERIENCE

Prayer Request Web Page | Volunteer | code Mar. 2020
- Modified Google Sheets scripts to retrieve and record prayer needs from the prayer request page

Food Journal Web App | Creator | code Apr. 2019
- Designed and built the front-end and back-end of the web application and integrated with IBM Watson API to display food names based on uploaded food pictures using React, JavaScript, Node.js, MongoDB and AWS S3
- Present the demo to audience of 20 potential employers

File Exchange Server | Creator Apr. 2017
- Developed a server program that handles an arbitrary number of concurrent connections and file exchanges from clients using TCP sockets in C++; built the client-side that enables file exchange and instructs the server to terminate

TECHNICAL SKILLS & CERTIFICATIONS

- Supervised Machine Learning: Regression and Classification Certificate, Stanford University Nov. 2022
  Proficient: Java8, TypeScript, JavaScript, C/C++, Swift, MongoDB, Vue, Node.js, Express, GCP, Redis, JUnit, SQL, MATLAB, Python (numpy, pandas, scikit-learn, pytorch), MATLAB, Latex