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Ziyi Xu

Electrical & Computer Engineering Student

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EDUCATION

Master of Engineering - Electrical & Computer Eng , University of Waterloo GPA: 90.50/100 Software Specialization 4 Machine Learning Courses Taken	Sept 2021 - Oct 2022
Bachelor of Engineering - Mechatronics Eng , McMaster University GPA: 10.42/12 The McMaster Honour Award, Level 3 2017-2019 2020-2021 Deans' Honour List	Sept 2017 - Jun 2021

SKILLS

Proficient	Java, JavaScript, Python, C/C++, SQL(MySQL), Git, Database, Data Structure & Algorithm, Web Development (HTML, CSS3, React, React-Redux, React-Router, Vue, SpringBoot, SSM, MyBatis-Plus/MyBatis, Maven, NodeJS, Bootstrap, Tailwind CSS)
Intermediate	NoSQL(Redis, MongoDB), Linux OS, Machine Learning (PyTorch, Tensorflow, Sklearn, Numpy, Pandas, Matplotlib), Micro-service (SpringCloud, Nacos/Eureka, RabbitMQ)
Beginner	Angular, AWS, Docker, Jenkins

EXPERIENCE

Backend Developer / Google Part-time Assistant Project	Jun 2022 — July 2022 Remote, USA-based
<ul style="list-style-type: none">Developed business requirements using SpringBoot and SpringCloud Frameworks.Utilized Mybatis and SQL for Object-relational mapping between MySQL and Java.Implemented RabbitMQ for high concurrency handling and asynchronous decoupling.Optimized user experience with Redis and Spring Cache.Improved system stability in high-concurrency situations using distributed lock and Bloom filter.Enabled horizontal scaling of relational databases with Sharding-JDBC.	

PROJECTS

Backend Developer / Reggie Takeout Website Individual Project	Jan 2023 — Apr 2023 Toronto, ON
<ul style="list-style-type: none">Developed a comprehensive merchant management system and a client ordering platform by SpringBoot Framework.Deployed MySQL for persistent storage, managing user and order information to ensure strong consistency.Utilized Mybatis-Plus for efficient Object-relational mapping (ORM) between MySQL and Java.Implemented pagination for on-demand querying and improved DB response time.Integrated Aliyun's short message service to facilitate two-factor authentication, enhancing the security of the platform.	
Full Stack Developer / Tripedia Full Stack Website Agile Development Team Project Received A+ (90/100)	Jan 2022 — April 2022 University of Waterloo, ON
<ul style="list-style-type: none">Developed a full-stack RESTful tour web application using SpringBoot Framework and React Frameworks.Integrated Amazon RDS as persistent storage for user data and files.Extended CrudRepository to achieve Data Access Object (DAO) with customized queries.Led unit testing with Junit5 in DAO and integrated SonarQube into the CICD pipeline to scan code coverage (85%).Leveraged Axios to handle asynchronous requests and Google Map API to embed a world map into the web page.Deployed the project on AWS EC2 cluster managed by the customized load balancer.	
Project Leader & GUI Developer / Hand Motion Supporting Device [Video] Capstone Group Project Received A+	Sept 2020 — Apr 2021 McMaster University, ON
<ul style="list-style-type: none">Led development of a portable glove to support and train patients' fingers during rehabilitation.Designed and developed user interface by Python Tkinter and managed user data in MySQL database.Developed an electro-mechanical control system in C++ in Arduino.	

ACTIVITIES

Computer Vision Developer / Robomaster Mac Robomaster Team Project	Sept 2020 — Sept 2021 McMaster University, ON
<ul style="list-style-type: none">Developed colour detection and number recognition algorithms using OpenCV in Python.Represented McMaster University in RoboMaster 2021 Robotics Competition.	
McMaster Engineering Competition 2020 Programming Section Participant Awarded Second Place, Among 69 Teams	Nov 7, 2020 McMaster University, ON
<ul style="list-style-type: none">Developed a COVID-19 Tracker App prototype development using React Framework to display infection information on the map.	