YAOYUN (GRACE) ZHANG

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EDUCATION

McMaster University — Hamilton, ON
Bachelor of Science in Computer Science, Faculty of Engineering — GPA: 3.7/4.0 — *Sept 2023 – Present*

PROFESSIONAL EXPERIENCE

CITIC Bank — Beijing, China
Developer Intern — *Jul 2023 – Aug 2023*

- Worked with the Credit and Compliance teams to standardise how they share internal reports. This report involved creating templates for weekly credit-risk summaries and monthly audit packs, and ensuring that the relevant data fields matched between systems. This decreased the time spent on manual reconciliation from about 5 hours per week to under 2 hours.
- Wrote part of Python and Bash scripts that run on Crontab to pull transaction records, account summaries and loan application data from Oracle into the risk dashboard weekly. Email updates were added so that the team would be notified on time if a job was having problem.
- Involved in the platform team test their Kafka setup for streaming transaction data. I ran some tests datasets with edge cases that needed to be tested during UAT and monitored consumer lag in the staging environment to make sure the data was flowing properly.

Sichuan Zhongce Zhibo Information Technology Co. — Chengdu, China
Developer Intern & Technical Instructor — *May 2024 – Aug 2024*

- Taught a group of over 25 high school students how to build AI object recognition projects using K210 vision chips and Python. I wrote tutorial slides about CNN basics, model training and embedded deployment, and ended up with 2 students' projects at end of the programme.
- Built firmware modules for a smart weighing system prototype. This involved using an STM32F103 with UCOSII for the real-time operating system (OS), setting up UART communication between components and writing part of calibration routines that achieved an accuracy of about 1 2 gram.
- Created lab exercises for a 12 week, including the introduction about embedded systems and Python, also covering necessary part of STM32 setup using STM32CubeMX, UART, SPI protocols and UCOSII task scheduling(for the project). I walked students through debugging with JTAG and helped them with their projects.
- I built a demo system with an LCD showing real-time weight readings and a voice feedback module. I presented what we had built at internal meetings and helped prepare materials when the team attended a regional education conference in Chengdu.

PROJECT EXPERIENCE

Parkinson's Disease Early Detection Game | *HTML, Elm, Vue.js* — Sept 2024 – Dec 2024

- Developed a browser-based tool for assessing reaction times and detecting tremor patterns with team. Using Elm for the detection logic and Vue.js to provide real-time feedback. I was responsible for ensure interfaces work well on different screen sizes and the accessibility.

Intelligent Weighing System | *C/C++, UCOSII, TypeScript, React, TensorFlow Lite* — Sept 2023 – Dec 2023

- Wrote embedded control modules using UCOSII to manage sensor data and handle multiple tasks concurrently. Also, integrated TensorFlow Lite for voice-assisted object recognition and connected an SPI LCD display to show the weight.

TECHNICAL SKILLS

- **Programming:** Python, Java, C, C++, TypeScript, JavaScript, HTML/CSS, Bash, Elm
- **Frameworks:** Spring Boot, MyBatis, Node.js, React, Vue.js, Electron
- **Databases & Caching:** MySQL, SQLite3, Redis, Oracle
- **Middleware & Tools:** RabbitMQ, Kafka, Git, Nginx, crontab, Docker
- **Data & Analytics:** Power BI, Databricks, Cognos, Informatica