

Zion Chong

Software Developer

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SKILLS

Programing languages:	Java, C#, C, C++, Python, JavaScript, HTML, PHP, CSS
Database:	DynamoDB, S3, MongoDB, MySQL, Oracle SQL, SQL Server, Firebase
Tools / platforms:	IoT, Linux, AWS, Git, GitHub, Raspberry Pi, Arduino, Unity, Gradio
library / Frameworks:	jQuery, AJAX, Node.js, Bootstrap
ML/AI:	Tensorflow, SKlearn, Keras, Librosa, Numpy, Matplotlib, Huggingface
Languages:	English, Mandarin, Japanese (Conversational)
Transferable skill:	Leadership, Teamwork, Problem Solving, Time Managment

EDUCATION

01/2019 – 05/2024	Computer Science, Thompson Rivers University - Recognized on the Dean's list (2022) (2023) - Les Koritz Memorial Award - Participated in Computer Science, Japanese, photography, and Game club. - Programming, software engineering, IoT development	Kamloops, Canada
09/2022 – 08/2023	Exchange Student, Toyo University - Involvement in language clubs, contributing to teaching and learning sessions for diverse linguistic skills. - Explored a diverse range of courses during studies in Japan, gaining exposure to various subjects and perspectives.	Tokyo, Japan
09/2015 – 06/2018	Vocational High School Diploma, Jingwen High School - Learned hardware fundamentals including circuitry and Programmable Logic Devices (PLD). - Gained proficiency in software coding and electronics.	Taipei, Taiwan

WORK EXPERIENCE

05/2024 – present	Research and Product Developer, Molycop - Develop and design custom hardware and software integration to improve factory efficiency - Integrate advanced technologies including AWS, Raspberry Pi, Arduino, industrial equipment, LoRa chips, and RFID systems. - Test, integrate, and optimize these solutions in an industrial setting to streamline processes and boost productivity. - Collaborate with cross-functional teams, including engineers and production managers, to ensure seamless implementation of new systems.	Kamloops, Canada
06/2020 – present	Software Developer, Kjet Air Duct Cleaning - Developed, tested, and maintained the company's customer database software. - Created software and user interfaces using Visual Studio (C#). Implemented a secure and efficient customer database utilizing SQL Server.	Mississauga, Canada

- Applied Agile software development methodology for streamlined collaboration and improved customer satisfaction.

PROJECTS

2023	IoT Workplace Safety and Security, Monitoring with Cloud Processing <ul style="list-style-type: none"> - Demonstrating efficient cloud processing and monitoring integration for sensor data management. - Leading a team of five members to successfully execute the project, ensuring efficient coordination, time management, and alignment with objectives. - Utilizing Raspberry Pi, sensors, and cloud-based AWS services (IoT Core, Lambda, DynamoDB, S3, Sagemaker)
01/2024 – 04/2024	IoT Proof of Concept for Molycop <ul style="list-style-type: none"> - Led a team of four individuals in collaboration with another team to develop a proof-of-concept product for a school project partnered with Molycop - Focused on improving factory productivity through hardware and software integration - Used technologies such as Firebase, Raspberry Pi, Arduino, industrial equipment, LoRa chips, and NFC - Utilized agile methodology throughout the project lifecycle, ensuring efficient collaboration, adaptability to changing requirements, and timely delivery of milestones
2024	Emotion Recognition using Speech <ul style="list-style-type: none"> - Developed a Speech Emotion Recognition (SER) system employing CNNs, RNNs, and a hybrid model to predict user speech emotion - Model trained on collected and 8 open-source audio data - Implemented feature extraction techniques such as Zero-Crossing Rate (ZCR), Root Mean Square (RMS), and Mel Frequency Cepstrum Coefficient (MFCC) - Created an interactive application deployed on Hugging Face, allowing users to input audio samples and receive real-time emotion predictions interactively
2022	SQL Injection and Prevention testing and evaluation <ul style="list-style-type: none"> - Conducted comprehensive testing of potential injection methods on both the website and local databases to identify vulnerabilities. - Developed and deployed code enhancements to fortify the system against potential injection attacks.
2020	Restaurant menu app with AR features <ul style="list-style-type: none"> - Designed a restaurant's ramen menu with interactive, life-like 3D representations projected onto your table using augmented reality (AR) technology. - Seamlessly access restaurant information, including contact details, integrated Google Maps for easy navigation, and social media integration.

CERTIFICATION

2017	Computer Maintenance Class – C Certification <ul style="list-style-type: none"> - Assemble and dismantle PC - OS installation (Windows and Linux) - Software Installation - Install RJ45 connector and network connection - Computer functionality test 	Taipei, Taiwan
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INTERESTS

IoT development • Application development • Raspberry Pi / Arduino • Language studies • Film & Digital Photography • Gym • Sports