# **Zion Chong**

# 4th Year Computer Science Student

in https://www.linkedin.com/in/zion-c/ https://huggingface.co/ZionC27

#### **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: ¡Query, 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 - present **Computer Science,** Thompson Rivers University

Kamloops, - Recognized on the Dean's list (2022) (2023) Canada

- Les Koritz Memorial Award

- Participated in Computer Science, Japanese, photography, and Game club.

- Programming, software engineering, IoT development

09/2022 - 08/2023 **Exchange Student,** Toyo University Tokyo, Japan

- 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.

**Vocational High School Diploma,** *Jingwen High School* 09/2015 - 06/2018

Taipei, Taiwan

- Learned hardware fundamentals including circuitry and Programmable Logic Devices (PLD).

- Gained proficiency in software coding and electronics.

#### WORK EXPERIENCE

06/2020 - present **Software Developer,** *Kjet Air Duct Cleaning*  Mississauga, Canada

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

Zion Chong zion2027@gmail.com 1/2 2023

# **IoT Workplace Safety and Security, Monitoring with Cloud Processing**

- Demonstrating efficient cloud processing and monitoring integration for sensor data management.
- Leading a cohesive 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**

- 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 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**

- Developed a Speech Emotion Recognition (SER) system employing CNNs, RNNs, and a hybrid model combining both architectures 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**

- 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

- 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**

Taipei, Taiwan

- Assemble and dismantle PC
- OS installation (Windows and Linux)
- Software Installation
- Install RJ45 connector and network connection
- Computer functionality test

### INTERESTS

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