TSUN MING ANDRE HUI

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A self-driven software engineer, experienced in Agile and Waterfall development. Passionate for creating responsive applications. Eager to solve complex problems efficiently through writing modular, comprehensible code.

EDUCATION

Master of Computer Science, Durham University   Oct 2017 - Jun 2021
MSc, First Honours

- Dissertations focused in Machine Learning and Computer Vision.
- Studied Image Processing, Networks & Systems, Algorithms & Data Structures, SQL Databases, Computer Graphics.
- Participated in Hackathons, receiving an honourable mentions in DurHack 2018 for an aural VR experience.

EXPERIENCE

Volunteer Flutter Developer   Nov 2022
CollAction   *Remote*

- Developed widgets for social interaction and the display of user achievements/badges in a mobile app.
- Increased test coverage by 30%, using Flutter and Dart to implement unit testing for presentation widgets.
- Worked alongside a fellow developer to develop Crowd Action features in a web-based CMS.
- Participated in weekly stand-ups, discussing progress and design decisions.
- Mentored junior flutter developers in the team.

SKILLS

Proficient in	C++ Development, Web Development (HTML5, CSS, JavaScript), RESTful APIs, C# .NET Digital Signal Processing, Machine Learning, Android/iOS Development

PROJECTS

Sustenato Pedal - Infinite Sustain for Guitars

- Programmed a VST3 plugin using JUCE, implementing DSP algorithms and handlers for support across Windows and MacOS platforms.
- Deployed a REST API using Firebase, Google Cloud, TypeScript and Node.js for handling license validation.
- Automated database updates by utilizing the BuyMeACoffee API, reducing any need for human involvement.
- Designed a front-end interface for users to manage their licenses conveniently.

ReVox: Software Soundboard and Voice Changer

- Developed an open-source audio manipulation software for Windows, targeted at live-streamers and video-game players, using C++, the Qt Framework, and C libraries including PortAudio, libsndfile, libsamplerate and others.
- Worked with volunteer testers to ensure compatibility and reliability across Windows 10/11 systems.
- Applied DSP and multi-threaded algorithms to develop an autotune effect with sub-100ms delay.
- Downloaded over 100 times.

Sideout - GeoJam 2022

- Built a 2D top-down survival game in Unity using C#, within a 3-day time limit, based on a provided theme.
- Used mathematical concepts to realize geometric animations and interactions, achieving 4th place in gameplay.
- Placed 23rd overall out of 254 submissions.