Andre Hui

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EDUCATION

Durham University, Durham, UK - October 2017 - July 2021

Integrated Master's of Engineering in Computer Science

- Awarded First Honors (70% and above overall)
- Completed a Bachelor's-level course spanning October 2017 - July 2020 (360 credits), followed by a Master's-level course spanning October 2020 - July 2021 (120 credits)
- Modules: Software Engineering, Software Methodologies, Computer Vision, Deep Learning, Distributed Systems, Security, Web Programming, Recommender Systems, Natural Language Processing

SKILLS

Programming Languages:	C#, Python, C++, HTML, CSS, Javascript, Lua, R, Java
Software:	Unity Engine, Visual Studio, Git
Libraries/APIs/Frameworks:	Pytorch, openCV, Bootstrap, Node.js, JUCE, libsndfile, portaudio, numpy
Soft Skills:	Teamwork, planning, written and verbal communication, attentive to detail

PROJECTS

ReVox: Soundboard, Sampler and Voice Changer — *Personal Project - C++, Windows*

April 2022 - ongoing

- Designed and implemented a dynamic UI using the Qt framework
- Implemented a custom realtime pitch-changer/autotune voice effect
- Designed a system managing multiple audio devices, interweaving audio streams and audio recording
- Used Windows Hooks to create a hotkey system for activating voice effects/playing sounds
- Ran compatibility/usability tests with volunteer testers
- Documented installation/usage instructions through GitHub Wiki

VR Drum Simulator — *Personal Project - Unity Engine, C#*

November 2021 - April 2022

- 3D-modeled parts of a drum kit
- Programmed and designed physics interactions and player controls to be highly realistic
- Solved problems regarding collision handling in Unity
- Designed and programmed unintrusive and robust user interfaces
- Added integration into music creation software

Single RGB-Camera Gesture Detection — *University 3rd Year Project - Python*

October 2019 - May 2020

- Used openCV to apply various image processing and computer vision techniques for hand detection from a live camera stream
- Used Pytorch to implement and train a custom Gesture Recognition neural network
- Tested the software with different people in different environments and different camera angles
- Presented the project and final results to professors at the University

WORK EXPERIENCE

Li & Fung, Hong Kong— *Intern* - July 2017 - August 2017

- Organized and updated a database of products supplied through the company to be more readable
- Created a brochure to market the company to potential clients