

# KEXIN ZHENG

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## RESEARCH INTERESTS

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AR/VR, Multimodal Interaction, Interactive Computer Graphics

## EDUCATION

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**City University of Hong Kong** **Hong Kong, HK**  
**Bachelor of Science in Creative Media (First Class Honours)** Sep 2017 - Jul 2021  
- GPA:3.80/4.30 (Top 10%)  
- Graduation Project: 'CREATOR: a 2D-to-3D mobile AR scene creation system'

**Trinity College Dublin, The University of Dublin** **Dublin, IE**  
**Exchange Student in Computer Science** Sep 2019 - Dec 2019  
- Modules: Computer Graphics, Computer Vision, Human Factors (Graded with First Class Honours)

## RESEARCH EXPERIENCE

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**Department of Computer Science, City University of Hong Kong** **Hong Kong, HK**  
**Research Assistant - Supervisor: Dr. Shiqi Wang** Jul, 2021 - Jul, 2022  
*Research Topics: Multimedia Forensic, Human Reconstruction*  
- Designed signal for an acoustic-based anti-spoofing system on smart phone. Develop corresponding data collection Android application and target signal extraction algorithm.  
- Assisted in the design and evaluation of deep learning framework for acoustic-based face anti-spoofing. Use PyTorch to fine-tune model for visual and acoustic face features. **Paper accepted by TIFS**  
- Developed Android application for acoustic-based anti-spoofing using Java and PyTorch  
- Researched on human 3D avatar generation for video-driven human reenactment

**School of Creative Media, City University of Hong Kong** **Hong Kong, HK**  
**Undergraduate Researcher - Supervisor: Dr. Kening Zhu** Jun, 2020 - Jun, 2021  
*Research Topics: Multimodal Interaction, Haptic Interface*  
- Designed and developed user study software using Processing to control hardware with GUI and collect data. Analysed the collected data using confusion matrix. **Paper accepted by ICMI'2021**  
- Designed and developed mask interface using Arduino and sensors to recognize command input from mouth movements  
- Developed an Android application to collect acoustic signal of gesture-based interaction on AR glasses.

## PUBLICATION

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Chenqi Kong, **Kexin Zheng**, Shiqi Wang, Anderson Rocha, Haoliang Li. 2022. Beyond the Pixel World: A Novel Acoustic-based Face Anti-Spoofing System for Smartphones, *IEEE Transactions on Information Forensics and Security*

Arshad Nasser, **Kexin Zheng**, Kening Zhu. 2021. ThermEarhook: Investigating Spatial Thermal Haptic Feedback on the Auricular Skin Area, *In Proceedings of the International Conference on Multimodal Interaction (ICMI)*

## WORK EXPERIENCE

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**Smokeless.world GmbH**

**Munich, DE**

**Contract Designer (Remote)**

Feb, 2020 - May, 2021

- Provided graphic and UI element design for mobile application

**UI/UX design - frontend development Intern**

Jun, 2019 - Aug, 2019

- Provided UI design for the gamified mobile application

- Assisted in developing the android application using React Native

## AWARDS

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**2018 - 2021**

**CityU Scholarship**

**2017 - 2020**

**Dean's List Award in School of Creative Media**

**2019**

**HKSAR Reaching Out Award**

## OUTREACH & VOLUNTEER

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**2021**

**IEEE VR, Mentee**

**2019**

**ACM SIGGRAPH, Student Volunteer**

## SKILLS

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**Programming Language:**

C#, Python, Java, C++, HTML/CSS, JavaScript  $\LaTeX$

**Software & Libraries:**

Unity, PyTorch, Processing, openFrameworks

**Design Tools:**

Adobe Suite(Photoshop, Illustrator, InDesign, Lightroom, UX, Premier),  
Sketch, Maya

**Languages:**

English(Proficient), Mandarin(Native), Cantonese(Novice)