Xingci Gu

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Portfolio website developed with Node.js**:**

https://offmind.info

EDUCATION

University of Glasgow   **Glasgow, Scotland, UK**

 B.Eng. of Electronic and Electrical Engineering   2020.9 - 2024.7

University of Electronic Science and Technology of China (UESTC)   **Chengdu, Sichuan, China**

 B.S. in Electronic Information Engineering   2020.9 - 2024.7

University of Glasgow   **Glasgow, Scotland, UK**

 Advanced Project Skills Summer School 2023   2023.7 - 2023.8

Overall GPA: 3.76 / 4 (85.15 / 100)

RESEARCH EXPERIENCE

Research Assistant | Computer Vision, VR&AR Technologies, and Robotic Control   **Glasgow, Scotland, UK**

Advisor: Dr. Guodong Zhao (Ph.D. supervisor, University of Glasgow)   2021.9 -2023.9

- Took charge of the development and maintenance of the professor's academic website, used HTML, CSS, and JavaScript for day-night mode toggle and sorted publications for time sequences and book categories.
- Developed AR headset implementing hand interaction and image recognition with Vuforia but ripples.
- Improved previous system with built-in image recognition in C# for QR code location and image recognition, and transferred AR headset data to mobile apps via a cloud server using UDP.

Research Assistant | Digital Twins and Robotic Control   **Glasgow, Scotland, UK**

Advisor: Dr. Shuja Ansari (Ph.D. supervisor, University of Glasgow)   2023.7 – 2023.8

- Completed a project at the Glasgow Summer School, building a system of controlling a robotic arm via VR glasses, enabling TCP transmission between ROS and VR, applying PyTorch training using the VGG16 algorithm for the robotic arm to pick up objects using Inverse Kinematic calculations.

Research Assistant | Digital Humanities Laboratory   **Chengdu, Sichuan, China**

Advisor: Dr. Mei Xie (Ph.D. supervisor, UESTC)   2022.9 - Present

- Developed an interactive educational game about Chinese poetry using Unity Engine, which won the provincial third prize for the Milan Design Week China Design Exhibition.
- Instructed 15 junior students on data structures and algorithms, resulting in being recognized as an Excellent Volunteer at the International College Student Digital Humanities Elite Training Camp.
- Completed a Sci-Fi society-benefiting game project programming on behalf of the Laboratory for the World Science Fiction Convention in Chengdu; a software monograph for this game was submitted.
- Programmed interactive 2D to 3D installations using the BlazePose algorithm to generate 3D virtual models in real-time based on 2D camera human capture, mainly solved computer vision, action reconstruction problem, and real-time data transmission; a patent was submitted and under review.

Research Assistant | Network Communication and Control for Autonomous Vehicles   **Chengdu, Sichuan, China**

Advisor: Dr. Longjiang Li (Master supervisor, UESTC)   2022.9 - Present

- Contributed to the Internet of Things (IoT) fingerprint authentication project, focusing on feature extraction. Applied machine learning methods and found the best sampling rate for time sequence data.
- Take the final year project of network communication within the formation of autonomous vehicles based on Robot Operating System (ROS), enabling Quick UDP Internet Connections (QUIC) to perform edge computing, with the aim of solving the question of last-mile transportation.

LEADERSHIP EXPERIENCE

Founder of No Otter Crossing (NOC) Game Studio   **Chengdu, Sichuan, China**

- Raised the initial startup funding and managed investor relations, and secured   2020.9 - Present

contracts and partnerships with publishers and platforms. Oversaw studio finances and profit and loss.
- Created the debut game 'Stay Hungry' with a role-playing game (RPG) that incorporated game mechanics, including character interaction, an engaging quest system, and a battle system. The demo video garnered 120K views, winning Best Art at the Game Competition held at UESTC in 2022.
- Contributed to the programming of the game "Soul Link" integrated with the Steam platform, which was recognized with the third prize at the Tencent University Game Creation Competition and earned a Best Gameplay nomination in the finals of the China University Students Game Creation Award.
- Crafted real-time strategy game "Interstellar Cleanse Project" featuring place, card, skill, and saves systems. It was entered into the 21-Day BOOOM x Unity Game Jam and demonstrated at an offline event in Chengdu. The Android version was released on the Chinese gaming community TapTap for free play.

Personal Media Account Operation and Art Collaboration   **Chengdu, Sichuan, China**
- Established and grew personal social media profiles primarily focused on animation   2020.9 - Present video editing and game development, gaining 8K subscribers with 550K video views and 100K likes.
- Attained certification on professional illustration collaboration platforms on Bilibili and Mihuashi (pass rate below 5%), gaining experience with private art commissions and art outsourcing work with corporate companies, developing skills in client communication and balancing their needs.

Vice-President of the College's Debate Team   **Chengdu, Sichuan, China**
- Led college's team participation in inter-collegiate debate   2021.9 - Present
   competitions, working with coaches and the president to analyze their strengths and weaknesses.
- Conducted regular training sessions to prepare team members for debates and competitions, including practicing debate styles and techniques, analyzing current event topics, and providing individual feedback.
- Participated in official competitions representing the college team and won the award for Best Speaker in a Single Debate at the UESTC Debate Competition and first place in the School Freshman Debate Cup.

PUBLICATIONS AND PATENT

X. Gu, Y. Yuan, L. Li "A Solution for Last Mile Transport: QUIC Edge Computing Networks for ROS-Based Autonomous Vehicle Formation," in preparation for the conference.

X. Gu, Y. Yuan "A method for data acquisition and processing of human body nodes and 3D virtual character action reconstruction based on monocular camera" [in Chinese], Patent in progress, Submitted on 27th Oct 2023.

X. Gu. "Interstellar Cleanse Project: A game software developed by Unity" [in Chinese], Software Copyright in progress, No. 2023R11L2310721, Submitted on 31st Oct 2023.

HONORS & AWARDS

Best Team in the School Freshman Debate Cup and **Best Speaker** in a Single Debate in UESTC	2020.10, 2020.11
National College Digital Art & Design, **Provincial Second and Third Prize**	2021.8, 2023.8
Scholarship for Excellent Student of UESTC, **Second Class**	2021.12
Excellent Volunteer of International College Student Digital Humanities Elite Training Camp	2022.8, 2023.7
Best Art Award in Second Game Competition at UESTC	2022.9
Third prize in the Tencent University Game Creation Competition at UESTC Game Jam	2022.10
Excellent Creative Award at the 7-Day UnityCN Newbies Game Jam	2022.11
Best Game Play Nomination of the China University Students Game Creation Award	2023.5
Excellent Game Play Award and **G4G Nomination** of 21-Day BOOOM x Unity Game Jam (rank 1%)	2023.11
Scholarship for Outstanding Performance Student of UESTC (rank 2%)	2023.11

SKILLS

Programming: C# and Python (mainly), JavaScript, MATLAB, C, CSS, HTML.   github.com/0FFMIND
Experimentation skills: Network communication, Edge Computing, Remote network control, AR&VR headsets programming, Computer vision, Digital art, Game programming.