

Zeyu Deng

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EDUCATION

2021 - Present: PhD in Computer Science, **Louisiana State University (LSU)**, US

2018 - 2019: MSc Internet Engineering, **University College London (UCL)**, UK

2016 - 2018: BEng Electronic and Electrical Engineering, **University of Birmingham**, UK

2014 - 2016: BEng Electrical Engineering and Automation, **Huazhong University of Science and Technology (HUST)**, China

ACADEMIC EXPERIENCE

- 2022 - Present: Research Assistant (LSU), supervised by Dr. Chen Wang
- 2022.9: Poster and demo presentation at UbiComp 2022
 - Poster: Remote Robot Control with Low-cost Robotic Arms and Human Motions
 - Demo: I Am a Robot: First-person Robotic Arm Control with Hand Motions in Virtual Reality
- 2022.3: Poster presentation at MobiCom 2021
 - Poster: Extracting Human Behavioral Biometrics From Robot Motions
- 2021 - 2022: Teaching Assistant (LSU): Grading and lab teaching

KEY SKILLS

- **Programming:** Python, MATLAB, C/C++ like programming platforms, e.g., ROS, Raspberry Pi, and Arduino
- **Language:** Chinese and English

PUBLICATIONS

- Meursing, E.*, **Deng, Z.***, Fogg, J., Huang, L., Wang, H., & Wang, C. (2022, September). I Am a Robot: First-person Robotic Arm Control with Hand Motions in Virtual Reality. In *Proceedings of the 2022 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp/ISWC '22 Adjunct)*.
- Fogg, J.*, **Deng, Z.***, Meursing, E., Huang, L., Wang, H., & Wang, C. (2022, September). Remote Robot Control with Low-cost Robotic Arms and Human Motions. In *Proceedings of the 2022 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp/ISWC '22 Adjunct)*.

* The authors contributed equally

- Shrestha, A., **Deng, Z.**, & Wang, C. (2021, October). Human perception-enhanced camera system for web conferences leveraging device motions. In *Proceedings of the 27th Annual International Conference on Mobile Computing and Networking* (pp. 877-879).
- Huang, L., Meng, Z., **Deng, Z.**, Wang, C., Li, L., & Zhao, G. (2021, October). Extracting human behavioral biometrics from robot motions. In *Proceedings of the 27th Annual International Conference on Mobile Computing and Networking* (pp. 825-827).
- Huang, L., Meng, Z., **Deng, Z.**, Wang, C., Li, L., & Zhao, G. (2021). Towards Verifying the User of Motion-controlled Robotic Arm Systems via the Robot Behavior. *IEEE Internet of Things Journal*.
- Huang, L., Meng, Z., **Deng, Z.**, Wang, C., Li, L., & Zhao, G. (2021, May). Robot Behavior-Based User Authentication for Motion-Controlled Robotic Systems. In *IEEE INFOCOM 2021-IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS)* (pp. 1-6). *IEEE*.

UNIVERSITY PROJECTS

Final Project – Team Optimization 3/2019 - 9/2019

University College London, UK

- To develop a multiagent deep reinforcement learning method for signal power allocation problems in spectrum sharing. Created a wireless communication environment where agents have imperfect information, trained in a centralized manner and executed in a decentralized manner.
- Wrote a literature review, developed a reinforcement learning method that agents worked cooperatively, wrote programs using Python

Final Year Project - Smart Things and Everyday “Robots” 10/2017 - 3/2018

University of Birmingham, UK

- To research in Tangible User Interfaces (TUIs), Pervasive/Ubiquitous Computing and the Internet of Things (IoT), develop an interactive system which can open and close drawers automatically by detecting the ambient condition and can be controlled within local Wi-Fi network
- Wrote a project report, built a smart cabinet with Adafruit Feather, Blynk server, actuators and sensors, wrote programs with the Arduino IDE

Second Year Project - Luke Linewalker 10/2016 - 3/2017

University of Birmingham, UK

- To build a robot which can automatically follow a black line within a semester
- Wrote the main program with the Arduino IDE
- Developed the appearance of the robot based on the X-Wing fighter from Star Wars with teammates, soldered part of the circuit onto stripboard
- Developed a Gantt chart to help guide the laboratory sessions

Summer Project - Auto Racing Car 7/2016

Huazhong University of Science and Technology, China

- To restructure a remote-control car so it can avoid obstacles automatically
- Designed the control units with microcontrollers, built the circuit with teammates on a breadboard, wrote programs in C

EXTRACURRICULAR ACTIVITIES

- **LSU HSSR Poster Judge:** Serve as poster judge at High School Summer Research (HSSR) Program
- **UCL MSc Student Representative:** Student representative of MSc Internet Engineering at UCL. Advised students' desires and suggestions to department staff, organized activities such as group study and social.
- **University Union Association Agent:** Organization and backstage work in Association Arts Festivals. Manager of Xiangsheng Society in the Association Union of HUST. Organized the recruitments of xiangsheng performers and amateurs, managed budget and venue.