

# HUI(NORBERT) ZHENG

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## RESEARCH INTERESTS

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- **Neuroscience:** Computational Neuroscience; Reinforcement Learning

## EDUCATION

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### Peking University

Ph.D in Biology, Academy for Advanced Interdisciplinary Studies

Wuhan, China

Sept. 2021 - Present

- **Advisor:** Dr. Yunzhe Liu

### Wuhan University

B.S in Computer Science and Technology, Hongyi Honor College

Wuhan, China

Sept. 2017 - Jun. 2021

- **GPA:** 3.84/4.00(92.1/100)
- **Rank:** 2/32(selected from 363 students in School of Computer Science, Wuhan University)
- **Exchange:** Visiting Student at University of California, Berkeley(2019 summer)

## RESEARCH EXPERIENCE

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### Peking University, Beijing, China

Research Assistant

Advisor: Dr. Yunzhe Liu

Oct. 2021 - Present

- Researched the role of replay for memory consolidation.
- Build a machine replicate the replay observed in both human and rodent.

### Peking University, Beijing, China

Research Assistant

Advisor: Dr. Si Wu

Mar. 2021 - Aug. 2021

- Researched the global to local information processing.
- Analyzed the dynamics of the neural network model with gap junction.

### Tsinghua University, Beijing, China

Research Assistant

Advisor: Dr. Minmin Luo

Sept. 2020 - Mar. 2021

- Researched the role of pituitary cells in systemic neuroinflammation at the single-cell transcriptome level.
- Revealed the transcriptional differences of different types of pituitary cells in the process of central nervous endocrine inflammation regulation.

### Tsinghua University, Beijing, China

Research Assistant

Advisor: Dr. Bin Liu

May. 2020 - Aug. 2020

- Researched the real-time processing of autonomous driving in the Internet of Vehicles.
- Designed efficient algorithms for the novel TCAM-NMC in-network accelerator, which accelerates the MEC-assisted similar 3D object detection for autonomous driving.

### Wuhan University, Wuhan, China

Research Assistant

Advisor: Dr. Haojun Ai

Feb. 2020 - Apr. 2020

- Researched transfer learning in Air-Writing.
- Developed a system that could transfer between different people.

## AWARDS AND HONORS

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Outstanding Graduate ( <b>12 out of 127, 10%</b> ), Wuhan University	Apr. 2021
National Scholarship, Wuhan University	Oct. 2020
Excellent Student Scholarship ( <b>Rank: 1/32</b> ), Wuhan University	Oct. 2020
National Second Prize of FPGA Innovation Design Competition, China	Dec. 2019
National Second Prize of Intelligent Robot Fighting Competition, China	Oct. 2019
Excellent Student Scholarship ( <b>Rank: 4/32</b> ), Wuhan University	Oct. 2019
Excellent Student Scholarship ( <b>Rank: 8/32</b> ), Wuhan University	Oct. 2018
Freshman Scholarship, Wuhan University	Oct. 2017

## PUBLICATIONS

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\* indicates equal contribution.

- Yunzhe Li\*, **Hui Zheng\***, He Zhu\*, Haojun Ai and Xiaowei Dong. "Cross-People Mobile-Phone Based Airwriting Character Recognition". ICPR2020 Accepted.
- Wenquan Xu, Haoyu Song, Linyang Hou, **Hui Zheng**, Xinggong Zhang, Chuwen Zhang, Wei Hu, Yi Wang, Bin Liu. "SODA: Similar 3D Object Detection Accelerator at Network Edge for Autonomous Driving". INFOCOM2021 Accepted.