

HUI(NORBERT) ZHENG

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RESEARCH INTERESTS

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

EDUCATION

Peking University, Beijing, China Sept. 2021 - Present

Ph.D. in Biology

- **Advisor:** Dr. Yunzhe Liu

Wuhan University, Wuhan, China Sept. 2017 - Jun. 2021

B.S in Computer Science (with honors)

- **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

Peking University, Beijing, China Oct. 2021 - Present

Research Assistant

Advisor: Dr. Yunzhe Liu

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

Peking University, Beijing, China Mar. 2021 - Aug. 2021

Research Assistant

Advisor: Dr. Si Wu

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

Tsinghua University, Beijing, China Sept. 2020 - Mar. 2021

Research Assistant

Advisor: Dr. Minmin Luo

- 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 May. 2020 - Aug. 2020

Research Assistant

Advisor: Dr. Bin Liu

- 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 Feb. 2020 - Apr. 2020

Research Assistant

Advisor: Dr. Haojun Ai

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

AWARDS AND HONORS

Outstanding Graduate (**12 out of 127, 10%**), Wuhan University Apr. 2021

National Scholarship, Wuhan University Oct. 2020

Excellent Student Scholarship (**Rank: 1/32**), 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 (**Rank: 4/32**), Wuhan University Oct. 2019

Excellent Student Scholarship (**Rank: 8/32**), Wuhan University Oct. 2018

Freshman Scholarship, Wuhan University Oct. 2017

PUBLICATIONS

* indicates equal contribution.

- 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," in IEEE International Conference on Computer Communications (INFOCOM), 2021.
- Yunzhe Li*, **Hui Zheng***, He Zhu*, Haojun Ai and Xiaowei Dong, "Cross-People Mobile-Phone Based Airwriting Character Recognition," in International Conference on Pattern Recognition (ICPR), 2020.