

YINHENG ZHU

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EDUCATION

Xiamen University (XMU), Xiamen, China 2015 -- 2019
B.E. in Cognitive Science and Technology
B.S. in Mathematical Statistic(double degree)
GPA:3.7/4(top 1%)

EXPERIENCE

University of California, Irvine CA, U.S. 2017.6 -- 2017.9
Research Assistant Supervisor: Prof. Harris¹
Accurate pupil tracking in the wild

- **Target:** Tracking pupil center in the head mounted near infrared image sequence for gaze estimation or other perceptual researches.
- **Accurate:** Pixel-wise error is required to be less than 5 pixel.
- Our method achieved state-of-art in accuracy. [arxiv]

Media Analytics and Computing Lab Xiamen, China 2017.9 -- Present
Research Assistant Supervisor: Prof. Rongrong Ji², Shaohui Lin³
Neural network quantization

- **Network Quantization:** Using low-bit fix-point representation for it's acceleration and compression.
- Read related publications and finished a review report.(in Chinese) [pdf]
- Reduplicated two representative papers. [project]
- Wrote a note about the mistake found in a NIPS paper [pdf]
- Quantized neural network suffer from inaccurate and biased gradient when trained with BP algorithm, and I am working on this through knowledge distillation and transfer learning.

SenseTime Research Shenzhen, China 2018.6 -- Present
Research Intern Supervisor: Dr. Qiong Yan⁴
Neural network quantization for mobile device

- **Target:** Improve inference speed of network in integer-only DSP unit for image argumentation.
- Designed special mechanism for linear interpolation that further improving the speed without loss on performance.

HONORS AND AWARDS

National Scholarship(0.2%)	2017
Lotus Foundation Scholarship(1%)	2017
Dean's Honor List(5%)	2017
National 2 nd Prize, Award on National Artificial Intelligence Design Competition	2017
Meritorious Winner, Award on Interdisciplinary Contest In Modeling	2017
Regional 3 rd Prize, Award on China-US Young Maker Competition	2016

📌 MISCELLANEOUS

- I write some blogs about neural network technique here(in Chinese): <https://www.zhihu.com/people/haffman/posts>
- There are some interesting course projects are hosted on GitHub: <https://github.com/cow8>

¹<http://www.ics.uci.edu/harris/>

²<http://mac.xmu.edu.cn/rjji-en.html>

³<https://sites.google.com/site/shaohuilin007/home>

⁴<http://www.yan-qiong.com/>