# Yunqi Miao

https://github.com/yoqim

Email : ytswxb@gmail.com

Mobile : +44-07842489644

## EDUCATION & AWARD

**University of Warwick** — Coventry, UK
*PhD. -* **Chancellor's schlr.** *- Advisor: Prof. Jungong Han* — *Jan. 2019 – Dec. 2022*

**Beihang University** — Beijing, China
*Master of Automation Science and Electrical Engineering -* **First-class schlr.** — *Sept. 2016 – Jan. 2019*

**University of Electronic Science and Technology of China (UESTC)** — Beijing, China
*Bachelor of Control Science and Engineering -* **National schlr.** & **Outstanding grads** — *Sept. 2012 – July 2016*

## EXPERIENCE

**Huawei** — London, UK
*Computer vision researcher intern. Advisor: Jiankang Deng.* — *Dec. 2021 - Present*

- **NIR-VIS face recognition**: To solve the overfiting problem in NIR-VIS face recognition, a physically-based method is used to generate a NIR-VIS dataset. Meanwhile, a modality discrepancy reduction loss is proposed to facilitate the identity feature learning.
- **Publication**: *"Physically-Based Face Rendering for NIR-VIS Face Recognition."* (**NeurIPS** 2022)

**Yepic AI** — London, UK
*Computer vision researcher intern* — *July 2021 - Nov. 2021*

- **Eye movement transferring**: Transferring the eye movement between avatars.

**MOMO Tech.** — Beijing, China
*Deep learning researcher intern* — *Feb. 2018 - Sept. 2018*

- **Head pose estimation**: Building a head pose estimation network based on landmark features. Also, addressing the problem of large-angle poses with synthesized data.
- **Facial image quality assessment**: Assessing image quality according to the resolution, lighting conditions, and light spots detection.
- **User searching and matching**: Given a query user facial image, retrieving the most similar facial images in the large-scale database.

## PUBLICATIONS & PROJECTS

- **Unsupervised person re-identification.**
  - Focusing on the noisy pseudo labels, a high quality cluster centroid mining strategy is proposed.

- **NIR-VIS person re-identification.**
  - Focusing on the large modality gap, a joint network, which integrates pose estimation and identity feature learning, is proposed.
  - **Submission:** *"On Exploring Pose Estimation as an Auxiliary Task for Visible-Infrared Person Re-identification."* (**Pattern Recognition** 2021).

- **Unsupervised image retrieval/patch matching.**
  - Focusing on the two key factors of binary descriptors: 1) robustness to transformations and 2) low bit correlations, an unsupervised binary local descriptor learning method is proposed.
  - **Publication:** *"Learning Transformation-Invariant Local Descriptors with Low-Coupling Binary Codes."* (**TIP** 2021).

- **Crowd counting.**
  - Focusing on the two key problems of crowd counting: 1) large scale variation and 2) noisy backgrounds, a dense structure based network is proposed.
  - **Publication:** *"Shallow feature based dense attention network for crowd counting."* (**AAAI** 2020).