

Shuai Chen

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EDUCATION

DPhil in Engineering Science (3D Computer Vision @ Active Vision Lab)	Sep 2020-2024
University of Oxford, Oxford	
M.S in Electrical Engineering	May 2016
University of Southern California, Los Angeles, CA	GPA 3.89/4.0
B.S in Electrical Engineering	May 2015
University of Southern California Los Angeles, CA	Major GPA 3.80/4.0, Cumulative GPA 3.64/4.0

RESEARCH INTERESTS

Computer Vision/Machine Learning. Proven track record of developing computer vision algorithms for real-time mobile platforms and embedded systems, including image super-resolution, semantic segmentation, video stabilization, and more. Currently pursuing a DPhil with a focus on camera relocalization and neural rendering.

PUBLICATIONS

- [1] **S Chen**, Z Wang, V A Prisacariu. Direct-PoseNet: Absolute Pose Regression with Photometric Consistency. International Conference on 3D Vision (3DV), 2021
- [2] C Li, L Song, **S Chen**, R Xie, W Zhang. Deep Online Video Stabilization using IMU Sensors. IEEE Transactions on Multimedia (TMM), 2022
- [3] **S Chen**, X Li, Z Wang, V A Prisacariu. DFNet: Enhance Absolute Pose Regression with Direct Feature Matching. European Conference on Computer Vision (ECCV), 2022
- [4] **S Chen**, Y Bhalgat, X Li, J Bian, K Li, Z Wang, V A Prisacariu. Refinement for Absolute Pose Regression with Neural Feature Synthesis. ArXiv, 2023
- [5] C Liu, **S Chen**, Y Zhao, H Huang, V A Prisacariu, T Braud. HR-APR: APR-agnostic Framework with Uncertainty Estimation and Hierarchical Refinement for Camera Relocalisation. ICRA, 2024

ACADEMIC SERVICES

Reviewer – ECCV 2022, CVPR 2023,24, ICCV 2023, ICRA 2024

WORK EXPERIENCE

- **Part-time Research Intern, Niantic Inc, London** Jul 2023- Present
 - Computer Vision Research
- **Senior Computer Vision Engineer, Huawei Technologies, China** Jan 2017-Jul 2020
 - Software Development for Android Mobile Phone Camera on Photography Enhancement
- **Software Verification Engineer, Huawei Technologies, China** Aug 2016-Dec 2016
 - Software Development for Android Booting and Recovery Automation Testing Environment
- **Engineer Intern, CITIC Pacific Mining in Perth, Australia** Jul 2012-Aug 2012
- **Engineer Intern, Motorola Mobility in Tianjin TEDA, China** May 2012-Jul 2012

PATENTS

- US Patent 20,200,334,789: Image Processing Method and Device
- US Patent 20,220,180,485: Image Processing Method and Electronic Device
- WO Patent WO/2021/013,139: Image Processing Method and Device
- WO Patent WO/2022/206,605: Method for Determining Target Object, and Photographing Method and Device
- WO Patent WO/2022/121796: Image Processing Method and Electronic Device

- CN Patent 113,572,948: Video Processing Method and Video Processing Device
- CN Patent 113,660,408: Video Shooting Anti-shake Method, Device

HONORS

- Member of USC Alumni Association, Beijing
- Dean's List for the Viterbi School of Engineering (2014)
- USC Chinese Soccer Team Captain, 2 times Runner-up & 1 time top 4 in SW Chinese Inter-College Cups (2014-2016)