Jiankang Deng

Computer Vision Researcher

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Working Experiences

09/20 - Now	**Senior Research Scientist & Principle Engineer**	Huawei London Research Center
	Research and development of face analysis algorithms.	
04/18 - 06/20	**Research & Development (R&D) Director**	Facesoft
	Design face analysis system on cloud and edge.	
06/19 - 09/19	**Intern**	Facebook
	Face expression generation. Work with **Tong Xiao**.	
03/15 - 08/15	**Intern**	Microsoft
	Clothing detection and analysis. Work with **Shaoqing Ren**, **Yichen Wei** and **Jian Sun**.	
12/13 - 05/14	**Intern**	Baidu
	Face detection and analysis. Work with **Junjie Yan**, **Yafeng Deng** and **Chang Huang**.	

Education Background

10/16 - 09/20   **Doctor's Degree in Computing**   Imperial College London

I was supervised by Prof. **Stefanos Zafeiriou** and funded by the **Imperial President's PhD Scholarships** in the Intelligent Behaviour Understanding Group (**IBUG**). My research topic was deep face analysis.

09/12 - 06/15   **Master's Degree in System Science**   Nanjing University of Information Science and Technology

I was supervised by Prof. **Qingshan Liu** in the **BDAT** Lab and worked closely with Prof. **Dacheng Tao**. My research topic was face alignment. I also won many international visual perception challenges (e.g. ImageNet and ActivityNet) during my master study.

09/08 - 06/12   **Bachelor's Degree in System Engineer**   Nanjing University of Information Science and Technology

I ranked 1st in the department and I passed three high-level qualification certificates (e.g. System Analyst, System Architect and Information Technology Project Management).

Academic Project Experiences

10/16 - 09/20   **PhD Project on 2D Computer Vision**   FACER2VM

Face matching for automatic identity retrieval, recognition, verification and management.

01/19 - 09/20   **PhD Project on 3D Computer Vision**   DEFORM

Large scale shape analysis of deformable models of humans.

Teaching Experiences

10/16 - 10/18   **Machine Learning**   Post-graduate Course

Lab tutor under Prof.**Maja Pantic**. Supervise the experiments and answer students' questions.

10/16 - 10/18   **Introduction to Databases**   Undergraduate Course

Teaching assistant under Peter McBrien. Answer students' questions and mark the experimental reports.

Workshop Organisations

- ICCV 2021, Masked Face Recognition Challenge & Workshop.
- ICCV 2019, Lightweight Face Recognition Challenge & Workshop.
- ICCV 2017, 3D Face Tracking in-the-wild Competition.
- CVPR 2017, 2D Facial Landmark Localisation Competition - The Menpo BenchMark.

Invited Talks

- ICCV 2019, Disguised Face Recognition Challenge, ArcFace for Disguised Face Recognition.
- ICCV 2019, Wider Face and Person Challenge, RetinaFace: Single-stage Dense Face Localisation in the Wild.
- CVPR 2017, ActivityNet Large Scale Activity Recognition Challenge, Improve Untrimmed Video Classification and Action Localization by Human and Object Tubelets.
- CVPR 2017, Beyond ImageNet Large Scale Visual Recognition Challenge, Speed/Accuracy Trade-offs for Object Detection from Video.
- CVPR 2017, Beyond ImageNet Large Scale Visual Recognition Challenge, BDAT Object Detection.
- ECCV 2016, ImageNet and COCO Visual Recognition Challenges, Efficient Object Detection From Videos.
- ICCV 2015, ImageNet and MS COCO Visual Recognition Challenges, Cascade Region Regression for Robust Object Detection.
- ICCV 2015, 300 Videos in the Wild (300-VW) Challenge, Facial Shape Tracking via Spatio-temporal Cascade Shape Regression.

Awards

- WCPA 2022, perspective projection based monocular 3D face reconstruction, **Rank 1st**.
- Baidu Talent 2021, global top 100 Chinese rising stars in artificial intelligence.
- DFW 2019, disguised face recognition challenge, **Rank 1st**.
- WiderFace 2019: wider face and person challenge, **Rank 2nd**.
- iQIYI-VID 2018: iQIYI celebrity video identification challenge, **Rank 1st**.
- ActivityNet 2017: untrimmed video classification, **Rank 1st**.
- ILSVRC 2017: object detection/tracking from videos, **Rank 1st**.
- ILSVRC 2017: object detection, **Rank 1st**.
- ILSVRC 2016: object detection/tracking from videos, **Rank 1st**.
- ILSVRC 2015: object detection, **Rank 1st**.
- ILSVRC 2015: object detection/tracking from videos, **Rank 1st**.
- 300VW 2015: face detection/alignment/tracking, **Rank 1st**.
- 300W 2014: face detection/alignment, **Rank 1st**.

Journal Publications

- Zheng Zhu, Guan Huang, **Jiankang Deng**, Yun Ye, Junjie Huang, Xinze Chen, Jiagang Zhu, Tian Yang, Jiwen Lu, Dalong Du, Jie Zhou. WebFace260M: A Benchmark Unveiling the Power of Million-Scale Deep Face Recognition, TPAMI 2022.

- Xiaobo Xia, Tongliang Liu, Bo Han, Nannan Wang, **Jiankang Deng** Jiatong Li, Yinian Mao. Extended T: Learning with Mixed Closed-set and Open-set Noisy Labels, TPAMI 2022.

- Kaihao Zhang, Dongxu Li, Wenhan Luo, Jingyu Liu, **Jiankang Deng**, Wei Liu, Stefanos Zafeiriou. EDFace-Celeb-1M: Benchmarking Face Hallucination with a Million-scale Dataset, TPAMI 2022.

- **Jiankang Deng**, Jia Guo, Jing Yang, Niannan Xue, Irene Cotsia, Stefanos P Zafeiriou. ArcFace: Additive Angular Margin Loss for Deep Face Recognition, TPAMI 2021.

- Grigorios G. Chrysos, Stylianos Moschoglou, Giorgos Bouritsas, **Jiankang Deng**, Yannis Panagakis, Stefanos Zafeiriou. Deep Polynomial Neural Networks, TPAMI 2021.

- Niannan Xue, **Jiankang Deng**, Shiyang Cheng, Yannis Panagakis, Stefanos Zafeiriou. Side Information for Face Completion: a Robust PCA Approach, TPAMI 2019.

- **Jiankang Deng**, Anastasios Roussos, Grigorios Chrysos, Evangelos Ververas, Irene Kotsia, Jie Shen, Stefanos Zafeiriou. The Menpo Benchmark for Multi-pose 2D and 3D Facial Landmark Localisation and Tracking, IJCV 2019.

- **Jiankang Deng**, George Trigeorgis, Yuxiang Zhou, Stefanos Zafeiriou. Joint Multi-view Face Alignment in the Wild, TIP 2019.

- Hui Shuai, Qingshan Liu, Kaihua Zhang, Jing Yang, **Jiankang Deng**. Cascaded Regional Spatio-Temporal Feature-Routing Networks for Video Object Detection, IEEE Access 2018.

- Zhenbo Yu, Guangcan Liu, Qingshan Liu, **Jiankang Deng**. Spatio-temporal Convolutional Features with Nested LSTM for Facial Expression Recognition, Neurocomputing 2018.

- Qingshan Liu, Jing Yang, **Jiankang Deng**, Kaihua Zhang. Robust Facial Landmark Tracking via Cascade Regression, PR 2017.

- Qingshan Liu, **Jiankang Deng**, Jing Yang, Guangcan Liu, Dacheng Tao. Adaptive Cascade Regression Model For Robust Face Alignment, TIP 2017.

- Qingshan Liu, **Jiankang Deng**, Dacheng Tao. Dual Sparse Constrained Cascade Regression for Robust Face Alignment, TIP 2016.

- **Jiankang Deng**, Qingshan Liu, Jing Yang, Dacheng Tao. M^3 CSR: Multi-view, Multi-scale and Multi-component Cascade Shape Regression, IVC 2016.

- Xiaoyan Li, Tongliang Liu, **Jiankang Deng**, Dacheng Tao. Video Face Editing Using Temporal-Spatial-Smooth Warping, ACM TIST 2016.

- XiaoTong Yuan, Zhenzhen Wang, **Jiankang Deng**, Qingshan Liu. Efficient X^2 Kernel Linearization via Random Feature Maps, TNNLS 2016.

- **Jiankang Deng**, Yubao Sun, Qingshan Liu, Hanqing Lu. Low Rank Driven Robust Facial Landmark Regression, Neurocomputing 2015.

Conference Publications

- Konstantinos Panagiotis Alexandridis, **Jiankang Deng**, Anh Nguyen, Shan Luo. Long-tailed Instance Segmentation using Gumbel Optimized Loss, ECCV 2022.

- Grigorios Chrysos, Markos Georgopoulos, **Jiankang Deng**, Jean Kossaifi, Yannis Panagakis, Animashree Anandkumar. Augmenting Deep Classifiers with Polynomial Neural Networks, ECCV 2022.

- Athanasios Papaioannou, Baris Gecer, Shiyang Cheng, Grigorios Chrysos, **Jiankang Deng**, Eftychia Fotiadou, Christos Kampouris, Dimitrios Kollias, Stylianos Moschoglou, Kritaphat Songsri-In, Stylianos Ploumpis, George Trigeorgis, Panagiotis Tzir akis, Evangelos Ververas, Yuxiang Zhou, Allan Ponniah, Anastasios Roussos, Stefanos Zafeiriou. MimicME: A Large Scale Diverse 4D Database for Facial Expression Analysis, ECCV 2022.

- Qingping Zheng, **Jiankang Deng**, Zheng Zhu, Ying Li, Stefanos Zafeiriou. Decoupled Multi-task Learning with Cyclical Self-Regulation for Face Parsing, CVPR 2022.

- Xiang An, **Jiankang Deng**, Jia Guo, Ziyong Feng, XuHan Zhu, Jing Yang, Tongliang Liu. Killing Two Birds with One Stone: Efficient and Robust Training of Face Recognition CNNs by Partial FC, CVPR 2022.

- Yang Liu, Wang steven, Zhipeng Zhou, **Jiankang Deng**, Baigui Sun, Hao Li. MogFace: Towards a Deeper Appreciation on Face Detection, CVPR 2022.

- Jia Guo, **Jiankang Deng**, Alexandros Lattas, Stefanos Zafeiriou. Sample and Computation Redistribution for Efficient Face Detection, ICLR 2022.

- **Jiankang Deng**, Jia Guo, Jing Yang, Alexandros Lattas, Stefanos Zafeiriou. Variational Prototype Learning for Deep Face Recognition, CVPR 2021.

- Baris Gecer, **Jiankang Deng**, Stefanos Zafeiriou. OSTeC: One-Shot Texture Completion, CVPR 2021.

- Zheng Zhu, Guan Huang, **Jiankang Deng**, Yun Ye, Junjie Huang, Xinze Chen, Jiagang Zhu, Tian Yang, Jiwen Lu, Dalong Du, Jie Zhou. WebFace260M: A Benchmark Unveiling the Power of Million-Scale Deep Face Recognition, CVPR 2021.

- Babiloni, Francesca, Ioannis Marras, Filippos Kokkinos, **Jiankang Deng**, Grigorios Chrysos, and Stefanos Zafeiriou. Poly-NL: Linear Complexity Non-Local Layers With 3rd Order Polynomials, ICCV 2021.

- Zhu, Zheng, Xianda Guo, Tian Yang, Junjie Huang, **Jiankang Deng**, Guan Huang, Dalong Du, Jiwen Lu, and Jie Zhou. Gait Recognition in the Wild: A Benchmark, ICCV 2021.

- Yu Yao, Tongliang Liu, Bo Han, Mingming Gong, **Jiankang Deng**, Gang Niu, Masashi Sugiyama. Dual T: Reducing Estimation Error for Transition Matrix in Label-noise Learning, NeurIPS 2020.

- **Jiankang Deng**, Jia Guo, Tongliang Liu, Mingming Gong, Stefanos Zafeiriou. Sub-center ArcFace: Boosting Face Recognition by Large-Scale Noisy Web Faces, ECCV 2020.

- Baris Gecer, Alexandros Lattas, Stylianos Ploumpis, **Jiankang Deng**, Athanasios Papaioannou, Stylianos Moschoglou, Stefanos Zafeiriou. Synthesizing Coupled 3D Face Modalities by Trunk-Branch Generative Adversarial Networks, ECCV 2020.

- **Jiankang Deng**, Jia Guo, Evangelos Ververas, Irene Kotsia, Stefanos Zafeiriou. RetinaFace: Single-stage Dense Face Localisation in the Wild, CVPR 2020.

- Grigorios G Chrysos, Stylianos Moschoglou, Giorgos Bouritsas, **Jiankang Deng**, Yannis Panagakis, Stefanos Zafeiriou. Pi-nets: Deep Polynomial Neural Networks, CVPR 2020.

- Zhihang Li, Teng Xi, **Jiankang Deng**, Gang Zhang, Shengzhao Wen, Ran He. GP-NAS: Gaussian Process based Neural Architecture Search, CVPR 2020.

- **Jiankang Deng**, Jia Guo, Niannan Xue, Stefanos Zafeiriou. ArcFace: Additive Angular Margin Loss for Deep Face Recognition, CVPR 2019 (oral).

- Yuxiang Zhou, **Jiankang Deng**, Irene Kotsia, Stefanos Zafeiriou. Dense 3D Face Decoding over 2500FPS: Joint Texture & Shape Convolutional Mesh Decoders, CVPR 2019.

- **Jiankang Deng**, Shiyang Cheng, Niannan Xue, Yuxiang Zhou, Stefanos Zafeiriou. UV-GAN: Adversarial Facial UV Map Completion for Pose-invariant Face Recognition, CVPR 2018.

- Jia Guo, **Jiankang Deng**, Niannan Xue, Stefanos Zafeiriou. Stacked Dense U-Nets with Dual Transformers for Robust Face Alignment, BMVC 2018.

- Niannan Xue, **Jiankang Deng**, Yannis Panagakis, Stefanos Zafeiriou. Informed Non-convex Robust Principal Component Analysis with Features, AAAI 2018 (oral).

- **Jiankang Deng**, Yuxiang Zhou, Shiyang Cheng, Stefanos Zafeiriou. Cascade Multi-view Hourglass Model for Robust 3D Face Alignment, FG 2018.

- Yuxiang Zhou, **Jiankang Deng**, Stefanos Zafeiriou. Improve Accurate Pose Alignment and Action Localization by Dense Pose Estimation, FG 2018.

Workshop Publications

- Jia Guo, Jinke Yu, Alexandros Lattas, **Jiankang Deng**. Perspective Reconstruction of Human Faces by Joint Mesh and Landmark Regression, ECCV Workshops 2022.

- **Jiankang Deng**, Jia Guo, Xiang An, Zheng Zhu, Stefanos Zafeiriou. Masked Face Recognition Challenge: The InsightFace Track Report, ICCV Workshops 2021.

- **Jiankang Deng**, Jia Guo, Debing Zhang, Yafeng Deng, Xiangju Lu, Song Shi. Lightweight Face Recognition Challenge, ICCV Workshops 2019.

- **Jiankang Deng**, Jia Guo, Stefanos Zafeiriou. Single-Stage Joint Face Detection and Alignment, ICCV Workshops 2019.

- **Jiankang Deng**, Stefanos Zafeiriou. ArcFace for Disguised Face Recognition, ICCV Workshops 2019.

- Stefanos Zafeiriou, Grigorios G. Chrysos, Anastasios Roussos, Evangelos Ververas, **Jiankang Deng**, George Trigeorgis. The 3D Menpo Facial Landmark Tracking Challenge, ICCV Workshops 2017.

- **Jiankang Deng**, Yuxiang Zhou, Stefanos Zafeiriou. Marginal Loss for Deep Face Recognition, CVPR Workshops 2017.

- Stylianos Moschoglou, Athanasios Papaioannou, Christos Sagonas, **Jiankang Deng**, Irene Kotsia, Stefanos Zafeiriou. AgeDB: The First Manually Collected, In-the-Wild Age Database, CVPR Workshops 2017.

- Stefanos Zafeiriou, George Trigeorgis, Grigorios Chrysos, **Jiankang Deng**, Jie Shen. The Menpo Facial Landmark Localisation Challenge: A Step Towards the Solution, CVPR Workshops 2017.

- Jing Yang, **Jiankang Deng**, Kaihua Zhang, Qingshan Liu. Facial Shape Tracking via Spatio-Temporal Cascade Shape Regression, ICCV Workshops 2015.

Patents

- **GB2576784**: Facial landmark localisation system and method. **Jiankang Deng** and Stefanos Zafeiriou. (Granted)

- **GB2582833**: Facial localisation in images. **Jiankang Deng** and Stefanos Zafeiriou. (Granted)

- **GB2581536**: Joint shape and texture decoders for three-dimensional rendering. **Jiankang Deng**, Yuxiang Zhou and Stefanos Zafeiriou. (Pending)

- **GB2592076**: Method of training an image classification model. **Jiankang Deng** and Stefanos Zafeiriou. (Awaiting Re-examination)

Review Services

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI, Impact Factor: 16.39)

- International Journal of Computer Vision (IJCV, Impact Factor: 11.54)

- IEEE Transactions on Image Processing (TIP, Impact Factor: 10.86)

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR, h5 index: 356)
- International Conference on Learning Representations (ICLR, h5 index: 253)
- Neural Information Processing Systems (NeurIPS, h5 index: 245)
- International Conference on Machine Learning (ICML, h5 index: 204)
- European Conference on Computer Vision (ECCV, h5 index: 197)
- IEEE/CVF International Conference on Computer Vision (ICCV, h5 index: 184)
- AAAI Conference on Artificial Intelligence (AAAI, h5 index: 157)