WEIKANG WANG

https://wei-kang-wang.github.io/ ◇ wkwang0916@outlook.com

EDUCATIONS

Columbia University **New York, USA**
M. Sc in Electrical Engineering *September 2017 - February 2019*
Cumulative GPA: 3.53/4.00

Beihang University **Beijing, China**
B. Eng in Automation *September 2013 - June 2017*
Cumulative GPA: 88.9/100.0, ***Rank: 1/29 (class), The Outstanding Graduate***
Thesis: Face recognition based on deep learning and embedded platform. Supervisor: Prof. Zhang B. C.

EXPERIENCES

University of Science and Technology of China **Hefei, China**
Academic Visiting Student, Supervisor: Prof. Wang S. F. & Prof. Chen E. H. *June 2019 - September 2020*
◦ Proposed a micro-expression recognition framework with assistance of Macro-expression images.
◦ Got about 10% increases of accuracy on each challenge in Micro-expression recognition community.
◦ One Conference paper published on ACM Multimedia 2020.

Nakamoto & **Turing Labs** **New York, USA**
Course project, Supervisor: Prof. Li, C. *September 2018 - December 2018*
◦ Performed an independent research project on autonomous vehicles of routing planning with occlusion traffic.

Data Science Institute, Columbia University **New York, USA**
Course Project, Supervisor: Prof. John Wright *January 2018 - May 2018*
◦ Developed theoretical analysis of the sparse representation of human face images and conducted experiments on AR database and YaleB database to justify ideas.
◦ Deploying various sparse coding algorithms on face classification problem.

COSMOS Lab, Columbia University **New York, USA**
Course Project, Supervisor: Prof. Zoran Kostic *September 2017 - December 2017*
◦ Built a mixture probability model based on Deep CNN to identify length-changed multi-digits images.
◦ Got 73.998% accuracy on The Street View House Numbers (SVHN) Database.

Institute of Automation, Chinese Academy of Science **Beijing, China**
Research Intern, Supervisor: Dr. Stan Li *September 2016 - November 2016*
◦ Concentrated on database fusion problem of combining MS-Celeb, Megaface and CASIA databases.
◦ Used Deep CNN to learn features for identifying same identities within different databases.

Intelligent System and Control Group, Beihang University **Beijing, China**
Research Student, Supervisor: Prof. Qin, S. Y. & Dr. Wang, T. *July 2015 - December 2015*
◦ Developed a new searching and tracking algorithm for a fleet of UVAs based on the idea of quantum probability.
◦ Added the concept of battery charging into consideration.
◦ One Conference paper published on IEEE International Conference in DSP 2016.

Machine Perception Lab, Beihang University **Beijing, China**
Research Student, Supervisor: Prof. Zhang, B. C. *March 2015 - June 2016*
◦ Proposed a new VC dimension based on probability to offer a more useful judgement in practical problems.
◦ Built a new keystrock dynamics database with new adding eigenvalue of pressure.
◦ Two Conference papers published on DEStech Transactions on Computer Science and Engineering.

Tsinghua University **Beijing, China**
Research Student, Supervisor: Prof. Gai, G. S. *March 2014 - June 2014*
◦ Proposed a method of compounding new type of autoclaved aerated concrete was developed using coal gangue and iron ore tailings.
◦ One Journal paper published on Construction and Building Materials.

PUBLICATIONS

Xia, B.*, **Wang, W.***, Wang, S., & Chen, E. (2020, October). Learning from Macro-expression: a Micro-expression Recognition Framework. In Proceedings of the 28th ACM International Conference on Multimedia (pp. 2936-2944). (∗: Equal Contribution)

Qin, R., Wang, T., Jiang, H., Yan, Q., **Wang, W.**, & Snoussi, H. (2016, October). Cooperative target searching and tracking via UCT with probability distribution model. In 2016 IEEE International Conference on Digital Signal Processing (DSP) (pp. 560-564). IEEE.

WANG, W. K., ZHANG, B. C., QIN, R. X., YAN, Q. H., & JIANG, H. T. (2016). A New VC Dimension Based on Probability. DEStech Transactions on Computer Science and Engineering, (aics).

YAN, Q. H., **WANG, W. K.**, QIN, R. X., JIANG, H. T., YANG, B. R., & ZHANG, B. C. (2016). Study on keystroke dynamic with feature of pressure. DEStech Transactions on Computer Science and Engineering, (aics).

Wang, C. L., Ni, W., Zhang, S. Q., Wang, S., Gai, G. S., & **Wang, W. K.** (2016). Preparation and properties of autoclaved aerated concrete using coal gangue and iron ore tailings. Construction and Building Materials, 104, 109-115.

HONORS

Full Scholarship for PhD study in Texas A&M University (**I declined due to Visa Application Issue**) *2020*

Full Scholarship for PhD study in University of Virginia (**I declined due to Visa Application Issue**) *2020*

The Third Class Prize Scholarship of Beihang University *2014*

The Second Class Prize of the Chinese Mathematics Competition (CMC) *2014*

The Second Class Prize Scholarship of Beihang University *2015*

The Outstanding Graduate of Beihang University *2017*

SKILLS

Programmings: Python, C, C++, R, Pytorch, TensorFlow.

Mathematical Abilities: Linear Algebra, Matrix Analysis, Calculus, Real Analysis, Complex Analysis, Functional Analysis, Differential Geometry, Probability, Statistical Inference.