

# Dinghow Yang | Curriculum Vitae

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## EDUCATION

### Tongji University

*B.Eng. in Software Engineering*

GPA: 4.58/5.0 (90.8/100), Top 8%

Shanghai, China

*Expected Graduation: June 2020*

Relevant Coursework: Calculus(A), Discrete Mathematics(A), Linear Algebra(A), Probability and Statistics(A), Combinatorics(A), Object-Oriented Programming(A), Data Structures and Algorithms(A), Operating Systems(A), Software Engineering(A), Computer Network(A), Databases(A), Computer Architecture(A), Digital Image Processing(A), Computer Graphics(A), Computer Vision(A)

Self-study Coursework: Machine Learning, Google Machine Learning Crash Course, Udacity Deep Learning, CS231n

## EXPERIENCE

### ilab

*Research Assistant*

- Major in computer vision and medical image analysis
- Under the guidance of Prof. Jianwei Lu and Dr. Guokai Zhang

Tongji Univ, Shanghai

*Aug. 2018 - Present*

### SAP

*Internship*

- I took part in the internship of SAP VT project.

SAP, Shanghai

*Jul. 2018 - Sep. 2018*

### Microsoft Student Summer Camp

*Participant*

- I was a participant of Microsoft Student Summer Camp 2018 at MSRA

Microsoft, Beijing

*Aug. 2018*

### Microsoft Student Club

*Chairman*

- Responsible for organizing club, managing every aspect of the club.

Tongji Univ, Shanghai

*Jun. 2018 - Present*

### Huawei Student Club

*Vice minister of technology*

- Responsible for teaching club members to learn some new skills, such as Java, Android.

Tongji Univ, Shanghai

*Apr. 2017 - Mar. 2018*

## HONORS & AWARDS

- 17' National second Prize in China Mathematical Contest in Modeling, Ministry of Education (Top 6.5%)
- 17' First-class scholarship, Tongji University (Top 5%)
- 17' Social activity scholarship, Tongji University (Top 5%)
- 17' Elite student, Tongji University (Top 5%)
- 18' Ali Tianchi Big Data Competition ICPR MTWI 2018 Word Detection 101/1424, ICPR2018 (TOP 7%)
- 18' Elite Leader of Microsoft Student Club, MSRA
- 18' Microsoft Practice Space Outstanding Winner, MSRA (10 of 119)
- 18' Shanghai First Prize in China Mathematical Contest in Modeling, Ministry of Education (Top 10%)
- 18' First-class scholarship, Tongji University (Top 5%)
- 18' Social activity scholarship, Tongji University (Top 5%)
- 18' Elite student, Tongji University (Top 5%)

## PROJECTS

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### OCR on Video

*Dec. 2017 – Mar. 2018*

Advisor: Researcher Chao Chen, Researcher Alan Ip, MSRA

- A project of Microsoft Student Club Practice Space, focusing on extracting video caption.
- Got Outstanding winner prize(10 of 119 teams)
- Based on top-hat transform, and using perceptive hash algorithm for caption deduplication, our algorithm achieving more than 390 frames per second, and the F1 score is higher than 95%.

### Word Detection

*Apr. 2018 – May. 2018*

- A project for Ali Tianchi Big Data Competetion ICPR MTWI 2018 Word Detection, focusing on images processing and text localization.
- Rank 101 of 1424 teams.
- Mainly used CTPN, detected the text from four directions.

### Prostatic Cancer Segmentation

*Oct. 2018 – Apr. 2019*

Advisor: Prof.Jianwei Lu, Dr.Guokai Zhang, ilab, Tongji Univ

- A project about semantic segmentation of prostatic cancer, focusing on predicting the cancer region and predicting the best point for prostate puncture.
- Used Mask-RCNN and U-net as the backbone network, and added Grad-CAM to generate the probability image.
- Basked on the MRI prostate cancer dataset, used 3D network architecture, could predict the volume of cancer region.

## PUBLICATIONS

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- Yuchen Zhong\*, Dinghao Yang\* and Qingjiang Shi. *Automatic caption extraction and recognition for videos via top-hat transform and res-crn.* submitted to IEEE ICIP 2019 (under review)(\* stands for equal first authors)

## TECHNICAL STRENGTH

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- Programming Languages: Python, C/C++, C#, Matlab, Java, HTML/CSS, L<sup>A</sup>T<sub>E</sub>X
- Platforms: Windows, Linux, macOS
- Version Control: Git
- Packages&Tools: Tensorflow, Keras, PyTorch, Azure, OpenCV, NNI

## ADDITIONAL

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- I'm a founder of a commonweal organization,which focuses on education, and I've made several speeches in a senior high school
- Interest :Machine Learning,Deep learning,Computer vision(Now I'm learning them by myself and do related projects in our laboratory)