# **Qingyang Tan**

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Personal Website: qytan.com

#### **EDUCATION**

University of Chinese Academy of Sciences (UCAS)

Sept 2014 - Present

**Bachelor of Engineering (Expected 2018)** 

Overall GPA: 3.89/4 Subject GPA: 3.90/4

Class ranking: 1/68

Massachusetts Institute of Technology (MIT)

Feb 2017 - May 2017

**EECS Special Student** 

GPA: 5.0/5.0

#### RESEARCH AND PROJECT

# Classification and Recognition of Isolated and Continuous Sign Language

Sept 2017 - Present

Institution: Institute of Computing Technology (ICT), Chinese Academy of Sciences (CAS)

Director: Prof. Xilin Chen, Prof. Xiujuan Chai

- > Developed end-to-end and multi-task framework to classify sign language video
- > Applied spatial and temporal aggregated feature to sign language video

## **Neural Network for 3D Mesh Data**

May 2016 - Sept 2017

Institution: Institute of Computing Technology (ICT), Chinese Academy of Sciences (CAS)

Director: Prof. Shihong Xia, Dr. Yu-Kun Lai, Prof. Lin Gao

- Combined neural network and intrinsic mesh feature to analysis and generate 3D data
- > Defined new tunable parameters for network to capture most important deformations in certain dimensions
- Applied graph-based Convolutional Neural Networks (CNN) on irregular 3D mesh surface
- Added distance-based sparsity constraint to autoencoder framework
- ➤ One paper accepted by AAAI-18
- One paper accepted by CVPR 2018

## **Machine Learning Application in Startup Success**

Feb 2017 - May 2017

Institution: Massachusetts Institute of Technology

Director: Prof. Christian Catalini

- Developed code and tools to predict startup growth
- Processed large-scale dataset of startup funding and growth events
- Acquired and cleaned raw public data from website including LinkedIn and Github

# **Control System Implementation for Testing Biomedical Material**

Feb 2017 - May 2017

Institution: Massachusetts Institute of Technology

Director: Prof. Elazer Edelman

- Constructed system to test bioresorbable vascular scaffold material
- Programmed control software for the testing system

#### **Ultra-sensitive Controllable Antibiotics Scavenger**

Apr 2016 - Oct 2016

Institution: Institute of Biophysics (IBP), Chinese Academy of Sciences (CAS)

Director: Prof. Jiangyun Wang

- Investigated antibiotic pollution situation in China
- > Designed and built bio-system for degradation of antibiotics
- ➤ Built wiki website for the project via HTML
- > Silver Medal for International Genetically Engineered Machine (iGEM) Competition

## **PUBLICATIONS**

**Qingyang Tan**, Lin Gao, Yu-Kun Lai, and Shihong Xia. "Variational Autoencoders for Deforming 3D Mesh Models". In: *arXiv preprint arXiv: 1709.04307*. 2017. *Accepted by CVPR 2018* 

Qingyang Tan, Lin Gao, Yu-Kun Lai, Jie Yang, and Shihong Xia. "Mesh-based Autoencoders for Localized Deformation Component Analysis". In: arXiv preprint arXiv: 1709.04304. 2017. Accepted by AAAI-18 (Spotlight)

#### HONORS AND AWARDS

## **UCAS First-Class Academy Fellowship**

Oct 2015 / Oct 2016 / Oct 2017

Given by University of Chinese Academy of Sciences to top 5% students in each department.

**UCAS Best Undergraduate Research-Intern Report** 

Nov 2015 / Apr 2016

## **EXTRACURRICULAR ACTIVITIES**

Asian International Model United Nations, Peking University, Beijing Editor for UCAS Undergraduate Social Platform, UCAS, Beijing Volunteer Science Teacher, Hua-Ao School, Beijing

Apr 2016 Sept 2015 - June 2016 Oct 2014 - Jan 2015

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# SKILLS

- Hands on experience of Machine Learning and Neural Network libraries like TensorFlow, scikit-learn, Theano, Torch, Caffe
- Fluent in C, Matlab, Python
- ➤ Knowledge of SQL, Verilog, HTML

## STANDARDIZED TEST SCORES

TOEFL iBT: 101 (R 29, L 25, S 22, W 25) GRE: 323 + 3.5 (V 154-65%, Q 169-96%, AW 3.5-42%) TEST DATE: July 15, 2017
TEST DATE: Oct 22, 2017

#### REFEREES

1.	Name: Prof. Xilin Chen	Affiliation: ICT, CAS	Email address: xlchen@ict.ac.cn
2.	Name: Prof. Shihong Xia	Affiliation: ICT, CAS	Email address: xsh@ict.ac.cn
3.	Name: Dr. Yu-Kun Lai	Affiliation: Cardiff University	$Email\ address:\ LaiY  4@cardiff.ac.uk$
4.	Name: Prof. Christian Catalini	Affiliation: MIT	Email address: catalini@mit.edu
5.	Name: Prof. Shimin Chen	Affiliation: ICT, CAS	Email address: chensm@ict.ac.cn
6.	Name: Prof. Yungang Bao	Affiliation: ICT, CAS	Email address: baoyg@ict.ac.cn