

# Ou Changkun

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Born on October 25th 1993 in Zhijiang/Hunan/China

People's Republic of China citizenship

Single

Last update: May 13, 2019

# Curriculum Vitae

*Science and art, life in between*

[changkun.de](http://changkun.de) 

@changkun 

## Introduction

Changkun Ou is a research assistant at the University of Munich. His research topics are interdisciplinary in computational geometry, imitation learning, and human-computer interaction. In particular, he would like to leverage three-dimensional polygonal mesh representation learning and visual preference elicitation to develop efficient algorithms or industrial tools for 3D modeling and rendering.

## Education

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| • <b>University of Munich (LMU)</b><br><i>Research Assistant</i>   | Munich, Germany<br><i>Feb. 2019 – Present</i>   |
| • <b>University of Munich</b><br><i>Master of Science in Human-Computer Interaction; GPA: 1.63/1.00</i>                                    | Munich, Germany<br><i>Oct. 2016 – Jan. 2019</i> |
| • <b>University of Electronic Science and Technology of China (UESTC)</b><br><i>Master of Engineering in Software Engineering</i>          | Chengdu, China<br><i>Aug. 2016 – Sep. 2016</i>  |
| • <b>Southwest University for Nationalities (SWUN)</b><br><i>Bachelor of Engineering in Computer Science; GPA: 3.74/4.0; Top 1 Student</i> | Chengdu, China<br><i>Sep. 2012 – Jul. 2016</i>  |
| • <b>First Middle School of Zhijiang</b><br><i>Senior Middle School; With university entrance examination (Gaokao)</i>                     | Huaihua, China<br><i>Mar. 2010 – Jul. 2012</i>  |
| • <b>Changsha Foreign Language School</b><br><i>Senior Middle School</i>   | Changsha, China<br><i>Aug. 2009 – Feb. 2010</i> |
| • <b>Second Middle School of Zhijiang</b><br><i>Junior Middle School</i>   | Huaihua, China<br><i>Sep. 2006 – Jul. 2009</i>  |
| • <b>Chengnan Primary School of Zhijiang</b><br><i>Primary School</i>  | Huaihua, China<br><i>Sep. 2000 – Jul. 2006</i>  |

## Publications

- Changkun Ou, Yifei Zhan, Yaxi Chen. *Identifying Malicious Players in GWAP-based Disaster Monitoring Crowdsourcing System*. In IEEE ICAIBD' 19: Proceedings of the 2nd International Conference on Artificial Intelligence and Big Data. Chengdu, Sichuan, China, May 25-28, 2019.
- Changkun Ou, Jingyi Li, Yong Ma. *Cultivation and Incentivization of HCI Research and Community in China: Taxonomy and Social Endorsements*. In CHI'19 Workshop on "HCI in China: Research Agenda, Education Curriculum, Industry Partnership, and Communities Building", Glasgow, UK, May 2019, 2019.
- Changkun Ou, Malin Eiband(advisor), Daniel Buschek(co-advisor), Heinrich Hußmann(responsible professor). *Understanding and Predicting Web Browsing Behavior*. 2019, **Master Thesis**.
- Changkun Ou. *An Introduction to Recent Mobile Affective Inference Techniques: Methods, Applications and Challenges*. In Advanced Seminar Media Computer Science, IFI LMU, 2018. [English](#), [Slides](#).

- Matthias Geiger, Changkun Ou, Cedric Quintes. *WatchOut: A Road Safety Extension for Pedestrians on a Public Windshield Display*. In Lecture Advanced Topics in HCI, IFI LMU, 2017. [English](#).
- Changkun Ou, Yaxi Chen(responsible professor), Andreas Butz(co-reviewer). *Designing Alternative Contact-free Control Modalities for Smart Watches*. 2016, **Bachelor Thesis**. [Simplified Chinese](#), [English](#)
- Yaxi Chen, Changkun Ou. *Combining Touch Biometrics and Motion Sensors for Hand Posture Recognition and User Authentication System*. In Journal of Southwest University for Nationalities(Nature Science Edition). 2016, 42(4):429-435. [Simplified Chinese](#)
- Yaxi Chen, Changkun Ou, Zhaoyang Guo. *Space interactions based on monocular vision and simple gestures*. In Journal of Southwest University for Nationalities(Natural Science Edition). 2014, 40(16):871-876. [Simplified Chinese](#)
- Changkun Ou, Mu Huang, Mengxin Shi, Jiang Cheng. *A Study in Keep-Right-Except-To-Pass Rule*. In The Mathematical Contest in Modeling, 2014, **Meritorious Winner** [English](#)

## Open Talks

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- Changkun Ou. *A Glimpse to the Advances of Mesh Representation Learning*. Internal Doctoral Colloquium Spring 2019 [English](#).
- Changkun Ou. *Understanding and Predicting User Browsing Behavior*. Masters Defence Presentation, 2019 [English](#).
- Changkun Ou. *On the development of Quantified UX Metric*. Design Workshop II, IFI LMU, 2018 [English](#).
- Changkun Ou. *Capsule Network with Routing Mechanism*. Advanced Seminar Deep Learning, IFI LMU, 2018 [Part 1](#), [Part 2](#).
- Changkun Ou. *Understanding Generalization in Deep Learning*. Advanced Seminar Deep Learning, IFI LMU, 2018. [English](#), [Video](#).
- Hermann Redich, Patrick Börzel, Isabella Galter, Collin Leiber, Changkun Ou *Convolutional Neural Networks from Zero to Hero*. Advanced Seminar Deep Learning, IFI LMU, 2018. [English](#).
- Changkun Ou. *Mathematical Modelling Tutorial (Mandarin Chinese)*. 2016, [YouTube Playlist](#)

## Work Experiences

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- **Academic tutor** Munich, Germany  
 • LMU Lecture “*Machine Learning*” and “*Deep Learning and Artificial Intelligence*” Aprl. 2018 – Feb. 2019
  - SoSe 2018, materials and notes: [Homepage](#)
  - WiSe 2018/19, materials and notes: [Homepage](#)
- **LabEx** Chengdu, China  
 • Vice President of Software Engineering (Remote) Apr. 2018 – Dec. 2018
  - **Backend**: Infrastructure architecting and development: multi-cloud automation, remote desktop protocols, auto scaling, microservices
- **MagicLingua** Munich, Germany  
 • Fullstack Engineer (Freelance) Nov. 2017 – Mar. 2018
  - **Speech recognition**: Neural network squeezing; Audio streaming solutions
  - **Language Processing**: Conversation understanding; Language level, modelling; Answers fault-tolerance
  - **Web development**: Angular; Spring; WebSocket; MongoDB; Elasticsearch; Serverless
- **Shiyanlou** Chengdu, China  
 • Software Engineer (Intern) Jun. 2016 – Sep. 2016
  - **Recommendation System**: Online course recommendation system; Python; MongoDB; Collaborate Filtering

- **Distributed Log System:** Elasticsearch; Logstash; Kibana; Redis
- **Cross Platform Desktop Client:** Electron based development for macOS/Windows/Linux
- **Teaching Material Writing:** Modern C++ based teaching material writing

- **Academic Tutor**  
*SWUN Lecture “Human-Computer Interaction”*

Chengdu, China  
*Jul. 2015*

## Skills

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- **Languages:** go; python; javascript (typescript); c/c++ (for optimization); markdown; L<sup>A</sup>T<sub>E</sub>X; native Chinese; fluent professional English; elementary German
- **Systems/Tools:** General Linux DevOps; Docker; AWS/AlibabaCloud; MySQL/MongoDB/Redis
- **Frameworks:** sklearn/tensorflow/keras/opencv/numpy/matplotlib, flask, vue/angular/electron/jquery, node/express, beego/gin-gonic
- **Experienced Fields:**
  - **Human side:** User behavior modeling; User study; Ubiquitous interaction techniques; Quantified user experience; Website prototyping; Crowdsourcing strategy
  - **Machine side:** Statistical learning theory (specialize in generalization); Computer vision (specialize in convolutional network); Computer networks (specialize in transport layer protocols); Nature language processing (specialize in recurrent network methods); Distributed computing (specialize in microservices and consensus protocols)
  - **Mathematics:** Stochastic process; Probability; Elementary number theory; Formal logic and proof
- **Certificates:** Coursera, Andrew Ng: [Deep Learning Specializations](#), certificates: [1](#), [2](#), [3](#), [4](#), [5](#)

## Open Source Projects

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- *[Go under the hood](#)*: a book for source code study of programming language Go
- *[Modern C++ Tutorial](#)*: a book provides the fastest guide towards modern C++
- **gomat**: a matrix package with cache-aware lock-free tiling optimization in Go
- **sched**: a high performance reliable task scheduling package in Go
- **Tensorflow docs translation**: major contributor and project maintainer
- **Juejin Translation Public Community**: major contributor
- **GitHub for more**: [github.com/changkun](https://github.com/changkun)

## Public Activities

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- **Presenter**  
*at The ACM CHI Conference on Human Factors in Computing Systems*  
Glasgow, UK  
*May. 2019*
- **Student Volunteer**  
*at Conference Smart Graphics 2015*  
Chengdu, China  
*Aug. 2015*
- **Guigu Lab Team Leader**  
*at SWUN*  
Chengdu, China  
*Sep. 2014 – Jun. 2015*
- **Mathematical Modeling Association Academic Vice Director**  
*at SWUN*  
Chengdu, China  
*Oct. 2012 – Jun. 2014*

## Honors & Awards

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- **Siemens AILab Hackathon** Munich, Germany  
*2nd Winner* Nov. 2017
- **China National Scholarship** Chengdu, China  
*at UESTC* Sep. 2016
- **Excellent Bachelor Graduation Thesis Award** Chengdu, China  
*at SWUN* Jun. 2016
- **Outstanding University Graduates Student Award** Chengdu, China  
*at Sichuan Province* Jan. 2016
- **Outstanding Student Scholarship** Chengdu, China  
*at SWUN* Nov. 2015
- **Student Innovative Annual Excellent Project** Chengdu, China  
*at SWUN* Jun. 2015
- **Sichuan Province Computer Production Competition** Chengdu, China  
*2nd Award* May 2015
- **China National Scholarship** Chengdu, China  
*at SWUN* Sep. 2014
- **American Mathematical Contest in Modeling(MCM) 2014** Chengdu, China  
*Meritorious Winner* Apr. 2014

## Personal Interests

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- **Open source contributions:** Writting open source book; Contributing and maintaining open source softwares
- **Video blogging:** Making videos on [YouTube channel](#)
- **Blogging and knowledge sharing:** on <https://changkun.de>
- **Video gaming:** Sony Playstation and Nintendo Switch player

## References

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- **Prof. Andreas Butz:** currently supervise for Master studies at LMU Munich Medieninformatik, Munich, Germany
- **Prof. Heinrich Hußmann:** exchange student course “Human-Computer Interaction I” at Southwest University for Nationalities, Chengdu, China
- **Dr. Daniel Buschek:** currently supervise for Master thesis at LMU Munich Medieninformatik, Munich, Germany
- **Malin Eiband:** currently supervise for Master thesis at LMU Munich Medieninformatik, Munich, Germany
- **Florian Lachner:** supervised for individual practical course at LMU Munich Medieninformatik, Munich, Germany
- **Prof. Yaxi Chen:** supervised for bachelor thesis at Southwest University for Nationalities, Chengdu, China
- **Prof. Wei Zhou:** supervised for bachelor thesis at Southwest University for Nationalities, Chengdu, China