

# Ou Changkun

Munich, Germany

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## Resume

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## Education

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- **University of Munich (LMU)** Munich, Germany  
*Master of Science in Computer Science; current GPA: 2.24/1.00* Apr. 2018 – Present
- **University of Munich (LMU)** Munich, Germany  
*Master of Science in Human-Computer Interaction; current GPA: 2.24/1.00* Oct. 2016 – Present
- **University of Electronic Science and Technology of China (UESTC)** Chengdu, China  
*Master of Engineering in Software Engineering* Aug. 2016 – Sep. 2016
- **Southwest University for Nationalities (SWUN)** Chengdu, China  
*Bachelor of Engineering in Computer Science; GPA: 3.74/4.0; Ranking: 1/154* Sep. 2012 – Jul. 2016

## Skills

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- **Languages:** python; javascript (typescript); c/c++ (for optimization); obj-c; swift; markdown; L<sup>A</sup>T<sub>E</sub>X; Native Chinese Speaker; Professional Fluent English; Elementary German
- **Systems/Tools:** Mac user; General Linux DevOps; Docker; AWS/DigitalOcean/Aliyun; SQL/MongoDB; zsh/tmux/vim/vscode
- **Frameworks:** sklearn/tensorflow/keras/opencv/numpy/pandas/matplotlib, flask, jquery/vue/angular/electron/polymer, node/express
- **Knowledges:**
  - **Human side:** Ubiquitous Interaction Techniques; Large-scale User Study; Quantified User Experience; Website Prototyping; Crowdsourcing in Human Computation; Social Psychology
  - **Machine side:** Generalization Theory of Statistical Learning (specialize in Deep Neural Networks); Computer Vision (specialize in Convolutional Network methods); Nature Language Processing (specialize in Recurrent Network methods); Distributed Computing; High Performance Computing; Compiler Technique
  - **Mathematics:** Real Analysis; Stochastic Process; Elementary Number Theory; Formal Logic and Proof
- **Certificates:** Coursera, Andrew Ng: Deep Learning Specializations, certificates: [1](#), [2](#), [3](#), [4](#)

## Work Experience

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- **MagicLingua** Munich, Germany  
*Fullstack Engineer (Freelance)* Nov. 2017 – Present
  - **Speech Recognition:** Neural Network Squeezing; Audio Streaming Solutions
  - **Language Processing:** Conversation Understanding; Language Level Modelling; Answers Fault-tolerance
  - **General 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
  - **Desktop Client:** Electron based development for macOS/Windows/Linux
  - **Teaching Material Writing:** C++ 11/14 based teaching material writing
- **LMU Media Informatics Group** Munich, Germany  
*Student Researcher (Intern)* Oct. 2016 – Jan. 2016
  - **Research topic:** Combining motion sensors and touch offset classify hand Posture and users
  - **Outcomes:** A iOS prototype App for User Study, densely data analysis via Support Vector Machine; paper report

## OPEN PROJECTS

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- **Open Projects:** [github.com/changkun](https://github.com/changkun)
- **Translation Works:** [github.com/changkun/translation](https://github.com/changkun/translation)

## Publications

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- Changkun Ou. *Understanding Generalization in Deep Neural Networks*. Advanced Seminar Deep Learning, IFI LMU, 2018. Inprogress.
- Changkun Ou. *An Introduction to Recent Mobile Affective Inferring Techniques: Methods, Applications and Challenges*. Advanced Seminar Media Computer Science, IFI LMU, 2018. Inprogress.
- 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](#).
- Matthias Geiger, Changkun Ou, Cedric Quintes. *WatchOut: A Road Safety Extension for Pedestrians on a Public Windshield Display*. Lercture Advanced Topics in HCI, IFI LMU, 2017. [English](#).
- Changkun Ou, Yifei Zhan, Zhe Li. *A Novel GWAP Disaster Monitoring System*. Lercture Human Computation, IFI LMU, 2017. [English](#)
- Changkun Ou. *The Fastest Guide of C++11/14*. 2016, [Simplified Chinese](#), [Source Code](#)
- Changkun Ou, Yaxi Chen(responsible professor), Andreas Butz(co-reviwer). *Designing Alternative Contact-free Control Modalities for Smart Watches*. 2016, **Bachelor Thesis**. [Simplified Chinese](#), [English](#)
- Changkun Ou. *Mathematical Modelling Tutorial (Mandarin Chinese Video Series)*. 2016, [YouTube Playlist](#)
- Changkun Ou, Yaxi Chen. *Combining Touch Biometrics and Motion Sensors for Hand Posture Recognition and User Authentication System*. Journal of Southwest University for Nationalities(Nature Science Edition). 2016, 42(4):429-435. [Simplified Chinese](#)
- Changkun Ou, Zhaoyang Guo, Yaxi Chen. *Space interactions based on monocular vision and simple gestures*. 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*. 2014, **MCM Meritorious Winner** [English](#)