

Ou Changkun

Munich, Germany

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Resume

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Education

- **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

- **Languages:** python; javascript (typescript); c/c++ (for optimization); obj-c; swift; markdown; \LaTeX ; 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:** Statistical Learning Theory (specialize in PAC-Bayes); Computer Vision (specialize in Convolutional Network methods); Nature Language Processing (specialize in Recurrent Network methods); Distributed Computing; High Performance Computing; Compiler Technique
 - **Mathematics:** Functional Analysis; Stochastic Process; Probability in Banach Spaces; Elementary Number Theory; Formal Logic and Proof
- **Certificates:** Coursera, Andrew Ng: [Deep Learning Specializations](#), certificates: [1](#), [2](#), [3](#), [4](#), [5](#)

Work Experience

- **Academic Tutor** Munich, Germany
LMU Lecture “Machine Learning” SoSe 2018 Aprl. 2018 – Present
- **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

Academic Tutor

Chengdu, China

- Cooperation lecture “Human-Computer Interaction I” between LMU and SWUN

Jul. 2015

OPEN PROJECTS

- **Open Projects:** github.com/changkun
- **Translation Works:** github.com/changkun/translation

Publications

- Changkun Ou. *An Introduction to Recent Mobile Affective Inference Techniques: Methods, Applications and Challenges*. Advanced Seminar Media Computer Science, IFI LMU, 2018. [English](#), [Slides](#).
- 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](#).
- Matthias Geiger, Changkun Ou, Cedric Quintes. *WatchOut: A Road Safety Extension for Pedestrians on a Public Windshield Display*. Lecture Advanced Topics in HCI, IFI LMU, 2017. [English](#).
- Changkun Ou, Yifei Zhan, Zhe Li. *A Novel GWAP Disaster Monitoring System*. Lecture 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](#)