# Ou Changkun

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Last update: October 20, 2017

#### **EDUCATION**

University of Munich (LMU)

Master of Science in Human-Computer Interaction

Munich, Germany since Oct. 2016

University of Munich

Exchange Student in Media Informatics

Munich, Germany Sep. 2015 – Feb. 2016

Southwest University for Nationalities (SWUN)

Bachelor of Engineering in Computer Science; GPA: 3.74/4.0 (1/154)

Chengdu, China Sep. 2012 – Jun. 2016

### Work Experience

MagicLingua

Munich, Germany

Fullstack Development (Praktikum)

Apr. 2017 - Aug. 2017

o alexa-skill: Developed voice interaction interface for English learner based on Amazon Alexa.

Shiyanlou

Chengdu, China

Jun. 2016 – Sep. 2016

Software Engineer (Intern)

- o shiyanlou-logsys: Built & maintained ELK+Redis distributed log analytics system;
- shiyanlou-desktop: Developed a cross-platform Electron Windows/macOS/Linux desktop client;
- shiyanlou-recosys: Developed a course recommendation system based on collaborative filtering through Python;
- **shiyanlou-courses**: Wrote 17 crash and advanced tutorials for C++ users.

# LMU Media Informatics Group

Munich, Germany

Student Research Internship

Oct. 2016 - Jan. 2016

- Research topics: Combining motion sensors and touch offset classify hand Posture and users
- **Prototyping development**: Developed a iOS prototype App for User Study, and finished densely data analysis via Machinea Learning algorithm
- o Paper report: Finished a report to summarize and conclude all discovering

### SELECTED PROJECTS

UniWorX Monitor Munich, Germany

Personal Project

Mar. 2017

- o Tech Stack: Python, Polymer, Node.js Express, Electron
- o Description: Developed an unofficial better LMU UniWorX System with new courses notifications

#### Munich Renting Tool

Munich, Germany

Personal Project

Oct. 2016

- o Tech Stack: JavaScript, Python, Google Map API, BeautifulSoup4
- o Description: A location visualization tool for Munich Studentenwerk private savings

### Designing Alternative Contact-free Control Modalities for Smart Watches

Bachelor Thesis

Chengdu, China Apr. 2016 – Jun. 2016

o Tech Stack: Swift, Node.js, Web Socket, watchOS, iOS, Leap Motion, Git

o Description: Developed an alternative way – midair gesture control – to operate smart watches

## Implementation of Interaction Perception Center

Chengdu, China

SWUN National Student-Innovative Project at SWUN Guigu Lab

Apr. 2014 - Apr. 2015

• Responsibility: Team leader and development

### Research on Spetical Interaction

Chengdu, China

SWUN Normal Student-Innovative Project at SWUN Computer Vision Lab

 $Jun.\ 2013-Dec.\ 2013$ 

o responsibility: Team leader and development

• More Open Source Projects: github.com/changkun

#### SKILLS

- Languages: python; javascript; c; c++; obj-c; swift; markdown/pandoc; 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: numpy/opencv/matplotlib/skearn/tensorflow, flask, jquery/react/vue/polymer/electron, node/express
- Knowledges:
  - **Human Side**: Human-Computer Interaction; User Study; User Experience; Product Prototyping; Human Computation; Social Psychology
  - Machine Side: Machine Learning; Recommendation System; Big Data Mining; Computer Vision; Distributed Computing; Compiler Technique; System Architecture
  - o Mathematics: Functional Analysis; Stochastic Process; Analytic Number Theory; Formal Logic and Proof

#### **Publications**

- 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. In Proceedings.
- 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 Modeling 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

# Honors & Awards

Outstanding Student

•	App@Night 2016 hackthon at University of Munich IBM IoT team Successful Participant	Munich, Germany Nov. 2016
•	hackaTUM at Technical University of Munich Landeshauptstadt Muenchen Successful Participant	Munich, Germany Nov. 2016
•	China National Scholarship At UESTC	Chengdu, China Sep. 2016
•	SWUN Bachelor Graduation Thesis Award  Excellent Thesis	Chengdu, China Jun. 2016
_	Sichuan Province University Graduates Award	Chengdu, China

Jan. 2016

First-class Scholarship SWUN Outstanding Student	Chengdu, China Nov. 2015
• SWUN College Student-Innovative Activity 2014  Annual Excellent Project	Chengdu, China Jun. 2015
The National College Student-Innovative Projects  Concluding Certificate	Chengdu, China Jun. 2015
	Chengdu, China $May\ 2015$
• First-class Scholarship SWUN Outstanding Student	Chengdu, China Nov. 2014
$ \bullet \begin{array}{l} \textbf{China National Scholarship} \\ At \ SWUN \end{array} $	Chengdu, China Sep. 2014
• Sichuan Computer Production Competition 2nd Award	Chengdu, China Jun. 2014
• Mathematical Contest in Modeling(MCM) 2014  Meritorious Winner	Chengdu, China <i>Apr. 2014</i>
First-class Scholarship SWUN Outstanding Student	Chengdu, China Nov. 2013
• Mathematical Contest in Modeling(MCM) 2013  Successful Participant	Chengdu, China <i>Apr. 2013</i>
SELECTED PUBLIC ACTIVITIES	
Juejin Translation Project  Translator, articles translation from English to Chinese	GitHub since Apr. 2017
<ul> <li>Translation: How to build complex user interfaces without going completely insane</li> <li>Proofreading: Everyone is a designer. Get over it.</li> <li>Translation: How to pretend youre a great designer</li> </ul>	
Personal Translation  Translation from English to Chinese  Leap Motion Official Development Documentation Translation: full translation  Swift 3 API Design Guidelines: full translation  The Swift Programming Language Chinese Translation: responsible for Release	
Academic Tutor	Chengdu, China
Cooperation lecture Human-Computer Interaction I between LMU and SWUN	Jul. 2015
• Student Volunteer • for Conference Smart Graphics 2015	Chengdu, China <i>Aug. 2015</i>
• SWUN Guigu Lab Team Leader  Tutorial for members applying projects	Chengdu, China Sep. 2014 – Jun. 2015
Mathematical Modeling Association Academic Vice Director  Academic tutorial for new members	Chengdu, China
Academic valorial for new memoers	Oct. 2012 – Jun. 2014
Computer Application and Development Association Core Member  Programming tutorial for new members	Chengdu, China Oct. 2012 – Dec. 2013