Ou Changkun

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Resume

#### Education

University of Munich (LMU)

Research Fellow in Human-Computer Interaction

Feb. 2019 - Present

University of Munich

Master of Science in Human-Computer Interaction; GPA: 1.87/1.00; Transcript

Munich, Germany Oct. 2016 - Jan. 2019

Munich, Germany

Southwest University for Nationalities (SWUN)

Bachelor of Engineering in Computer Science; GPA: 3.74/4.0; Ranking: 1/154; Transcript

Chengdu, China Sep. 2012 - Jul. 2016

# Work Experiences

Academic tutor

Munich, Germany

LMU Lecture "Machine Learning" and "Deep Learning and Artificial Intelligence"

Aprl. 2018 - Feb. 2019

o SoSe 2018, materials and notes: Homepage

• WiSe 2018/19, materials and notes: Homepage

LabEx

Chengdu, China

VP 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

- o 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

#### Skills

- Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; Languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; languages: go; python; javascript (typescript); c/c++ (for optimization); markdown; languages: go; python; pyt Chinese; fluent professional English; elementary German
- Systems/Tools: General Linux DevOps; Docker; AWS/AlibabaCloud; MySQL/MongoDB/Redis
- Frameworks: sklearn/tensorflow/keras/opency/numpy/matplotlib, flask, vue/angular/electron/jquery, node/express, beego/gin-gonic
- Experienced Fields:
  - o 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

### **Publications**

- Changkun Ou, Malin Eiband(advisor), Daniel Buschek(co-advisor), Heinrich Hußmann(responsible professor). Understanding and Predicting User Browsing Behavior. 2019, Master Thesis.
- Changkun Ou. An Introduction to Recent Mobile Affective Inference Techniques: Methods, Applications and Challenges. 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. 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, Yaxi Chen(responsible professor), Andreas Butz(co-reviwer). 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. 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. 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

## Open Talks

- 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 Video Series). 2016, YouTube Playlist

### Open Source Projects

- 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++
- Tensorflow docs translation: major contributor and project maintainer
- Juejin Translation Public Community: major contributor
- GitHub for more: github.com/changkun