

# Changkun Ou, Ph.D.

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Online version: <https://changkun.de/s/resume>

Last updated: September 18, 2023

## Resume

@changkun 

changkun.de 

## INTRODUCTION

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I received a Ph.D. in the field of human-computer interaction at the Institute of Informatics, LMU Munich (Germany). My [research](#) explore design tradeoffs on intelligent human-in-the-loop systems and develops machine learning algorithms to support user decision-making processes. In context, I employ efficient and robust engineering practices to design systems that deliver actual impact to real users.

## EDUCATION

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### Ph.D. Media Informatics (Dr. rer. nat.)

Feb. 2019 – Apr. 2023

LMU Munich

Munich, Germany

- **Thesis:** “*The Intelligence in the Loop: Empirical Explorations and Reflections*”, *Magna cum Laude*
- **Thesis Committee:** Prof. Dr.-Ing. [Andreas Butz](#) (Erstberichterstatter), Prof. Dr. [Eyke Hüllermeier](#) (Zweitberichterstatter), Prof. Dr.-Ing. [Marc Stamminger](#) (Drittberichterstatter).

### Master Student Human-Computer Interaction (M.Sc.)

Oct. 2016 – Jan. 2019

LMU Munich; overall grade: 1.63 (max. 1.0) between “Very Good” and “Good”

Munich, Germany

- **Thesis:** “*Understanding and Predicting Web Browsing Behavior*”
- **Advisors:** Dr. [Daniel Buschek](#), Dr. [Malin Eiband](#), Prof. Dr. [Heinrich Hufßmann](#)

### Bachelor Student Computer Science and Engineering (B.Eng.)

Sep. 2012 – Jul. 2016

Southwest University for Nationalities; overall grade: 3.74 (max. 4.0), “Top 1” of 154 students

Chengdu, China

- **Thesis:** “*Designing Alternative Contact-free Control Modalities for Smart Watches*”
- **Advisor:** Prof. Dr. [Yaxi Chen](#)

## RECENT PROFESSIONAL EXPERIENCE

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### Software Development Engineer III (Senior)

Sep. 2022 – Present

*Sixt SE*

Munich Pullach, Germany

- **As engineer:** design and developing automated pricing system to support price decisions; making existing systems approx. 300x faster
- **Involved techniques:** Go; C++; Python; Kubernetes; Jenkins; Prometheus; Postgres; Redis; AWS; etc.

### Research Associate

Apr. 2018 – Mar. 2023

LMU Munich

Munich, Germany

- **As researcher:** research on human-in-the-loop machine learning 3D graphics systems
- **As teacher:** teach 12 classes (as lecturer/instructor/assistant/tutor), and supervising 20+ student theses and seminars
- **As developer:** develop a 3D mesh processing backend system in collaboration with industry partner [WAY digital solutions](#); develop, migrate, and maintain a 17 year-old [university CMS system](#), and a 13 year-old [collaborative system](#)

### Backend Software Engineer (Remote)

Apr. 2018 – Jan. 2019

*LabEx Technology Ltd*

Munich, Germany

- **As team leader:** leading developments of an oversea product; established microservice based backend architecture; the product autoscales cloud instances (on AWS/AlibabaCloud) ranging from 20 to 200; the product user group grows from 5k+ to 30k+ during my incumbency.
- **As developer:** 1) developed a scalable remote desktop proxy (support WebSocket to VNC/RDP/SSH protocols) using Go; 2) developed an automated multi-cloud resource management microservice that abstracts cross cloud providers (supports AWS/AlibabaCloud over 15 cloud products, e.g., IAM/EC2/VPC/etc), scales and used by 10k+ users; 3) developed a kubernetes-like container and instance hybrid management service.
- **Involved techniques:** Frontend: Vue, jQuery, Webpack, Electron; Backend: Go, Cgo, Gin, Beego, gRPC, MySQL, MongoDB, Redis, Hypervisor, Nginx, Docker, Kubernetes, AWS, AlibabaCloud, etc

## OPEN SOURCE ACTIVITIES AND ORGANIZATIONS

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I am enthusiastic about the open source movement and active in the Go community. A public [statistics](#) indicates that I have earned 20.8k+ stars, 14.9k+ total code commits, 20 contributed open source projects. A public contribution [ranking](#) indicates I am a **top-200 active user in Germany**. See [github.com/changkun](https://github.com/changkun) for more authored softwares (including frameworks/tools). Here lists a few selected activities and organizations:

- **Go (organization member)**: an open sourced programming language developed by a team at Google, and have approx. [2 million developer users](#) in the globe. I am one of the official Go organization member (163 people in total), current maintainer of x/mobile repository, active contributor to language runtime and standard library.
- **fyne (organization member)**: an open sourced cross platform GUI framework written in Go, and I am one of the organization member (12 people in total), mainly contributing to graphics and mobile drivers, performance improvements.
- **The golang.design Initiative (founder)**: I created the organization. The organization currently hosts 25 software projects and 6 core members. The organization website have 465k+ page views and 66k+ historical viewers in total since Sep 2020.
- **The TalkGo community (organization member)**: I am a core member of the organization. The community organizes weekly public tech talks, currently have [6.35k+ subscribers](#), organized 132 public talks. I contributed 7 talks, and they are one of the most viewed talks.
- **Occasional contributions**: [Tensorflow](#) (164+ stars), [etcd](#) (39.6k+ stars), etc.

## EXPERTISE AND SKILLS

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Expertise is context- and comparison-dependent. Here states the years of experience in terms of use, also indicates an estimation of the level of expertise (either *intermediate*, *experienced*, or *expert*):

- **Domain**: *Computer graphics* (3D rendering and geometry processing, 3 years of Bachelors level teaching at university, 2 years of Masters level teaching, Blender/OpenGL/Metal/three.js, *experienced*); *Machine learning* (1 year of Masters level teaching at university, Andrew Ng's Deep Learning Specialization Certificate (ID: [QGH8ZVJ6J2L2](#)), Sklearn/Tensorflow/PyTorch/etc, *experienced*); *Data analysis* (3 years of PhD research, numpy/seaborn/pandas/etc., *experienced*); *Web development* (2 years of industrial backend engineering, Go/React/etc., *experienced*).
- **Language**: *Go* (5 years+, *expert*); *Python* (4+ years, *experienced*); *JavaScript/TypeScript* (5+ years, *experienced*); *C/C++* (2+ years, *intermediate*); *TEX* (10+ years, *intermediate*). I speak native Mandarin; fluent professional English; elementary German.

## SCHOLARSHIPS AND AWARDS

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<b>ACM SIGCHI Gary Marsden Travel Awards</b> <i>Full Travel Support</i>	<b>Jan. 2023</b>
<b>ACM Symposium on Virtual Reality Software and Technology</b> <i>Best Paper Award</i>	<b>Nov. 2022</b>
<b>ACM SIGCHI Mensch und Computer</b> <i>Honorable Mention Award</i>	<b>Sep. 2022</b>
<b>ACM SIGCHI Special Recognitions (CHI '20)</b> <i>Outstanding Reviews</i>	<b>Nov. 2019</b>
<b>Siemens AILab Hackathon</b> <i>2nd Winner</i>	<b>Nov. 2017</b> <i>Munich, Germany</i>
<b>China National Scholarship</b> <i>University of Electronic Science and Technology of China</i>	<b>Sep. 2016</b> <i>Chengdu, China</i>
<b>Excellent Bachelor Thesis Award</b> <i>Southwest University for Nationalities</i>	<b>Jun. 2016</b> <i>Chengdu, China</i>
<b>Best University Graduates Award</b> <i>Sichuan Province</i>	<b>Jan. 2016</b> <i>Chengdu, China</i>
<b>China National Scholarship</b> <i>Southwest University for Nationalities</i>	<b>Sep. 2014</b> <i>Chengdu, China</i>
<b>Meritorious Winner in American Mathematical Contest in Modeling (MCM' 14)</b> <i>Southwest University for Nationalities</i>	<b>Apr. 2014</b> <i>Chengdu, China</i>