

INTRODUCTION

I am a Ph.D. candidate in human-computer interaction at the Institute of Informatics, LMU Munich (Germany). My [research](#) focuses on intelligent human-in-the-loop systems and develops machine learning algorithms to exploit human preferential behavior, then support their decision-making process for the greater good. In context, I utilize efficient and robust engineering practices to explore system design trade-offs that can bring actual impact to real users.

EDUCATION

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

Feb. 2019 – Present

LMU Munich

Munich, Germany

- **Thesis:** “The Intelligence in the Loop: Empirical Explorations and Reflections”
- **Advisors:** 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 Hußmann](#)

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](#)

PROFESSIONAL EXPERIENCE

Software Development Engineer II

Sep. 2022 – Present

[Sixt SE](#)

Munich Pullach, Germany

- **As engineer:** design and developing automated pricing system to support price decisions

Research Associate

Aprl. 2018 – Present

[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

Fullstack Engineer (Freelance)

Nov. 2017 – Mar. 2018

[Rocketlingo UG](#)

Munich, Germany

- **As developer:** developed a voice bot to support novice language learner to improve their language skills by real-time voice recognition and synthesis (supports web and Amazon Alexa), optimize for audio streaming and multilingual fault tolerances using machine learning
- **Involved techniques:** TypeScript; WebSocket; Angular; Google Cloud STT and TTS; Sklearn; Voice Recognition; etc

OPEN SOURCE ACTIVITIES AND ORGANIZATIONS

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 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

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*); \LaTeX (10+ years, *intermediate*). I speak native Mandarin; fluent professional English; elementary German.

SCHOLARSHIPS AND AWARDS

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

Best University Graduates Award

Sichuan Province

China National Scholarship

Southwest University for Nationalities

Meritorious Winner in American Mathematical Contest in Modeling (MCM' 14)

Southwest University for Nationalities

Jan. 2016

Chengdu, China

Sep. 2014

Chengdu, China

Apr. 2014

Chengdu, China