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

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INTRODUCTION

I am a Ph.D. candidate in human-computer interaction at the Institute of Informatics, LMU Munich (Germany). My research is about human-in-the-loop 3D graphics systems in which I use machine learning to explore and exploit human preferences and improving their decision making. Thus, my research is in interdisciplying between machine learning, 3D graphics, and user modeling.

EDUCATION

Ph.D. Student Media Informatics (Dr. rer. nat.)   **Feb. 2019 – (exp.) Feb. 2023**

LMU Munich   *Munich, Germany*

- **Advisors**: *Prof. Dr. Andreas Butz (Erstberichterstatter), Prof. Dr. Eyke Hüllermeier (Zweitberichterstatter)*

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*

University Entrance Exam   **Sep. 2000 – Jul. 2012**

Overall grade: 512 (max. 750, first/second/third tiers: 520/451/357).   *Huaihua, China*

PROFESSIONAL EXPERIENCE

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 falt tolerances using machine learning
- **Involved techniques**: TypeScript; WebSocket; Angular; Google Cloud STT and TTS; Sklearn; Voice Recognition; etc

Open Source Activities and Organizations

A public statistics indicates that I have earned 18.2k+ stars, 14.2k+ total code commits, 30 contributed open source projects. A public contribution ranking indicates I am a **top 200 developer in Germany** or a **top 100 developer in China**. 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 (core 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 (core 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.
- **Juejin Translation Community (member)**: Major contributor, translated 50+ articles from English to Chinese.
- **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 a subjective 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, *intermediate*); *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, *experienced*). I speak native Mandarin; fluent professional English; elementary German.

Scholarships and Awards

ACM SIGCHI Special Recognitions (CHI '20)	**Nov. 2019**
Outstanding Reviews	*Munich, Germany*
Siemens AILab Hackathon	**Nov. 2017**
2nd Winner	*Munich, Germany*
China National Scholarship	**Sep. 2016**
University of Electronic Science and Technology of China	*Chengdu, China*
Excellent Bachelor Thesis Award	**Jun. 2016**
Southwest University for Nationalities	*Chengdu, China*
Best University Graduates Award	**Jan. 2016**
Southwest University for Nationalities	*Chengdu, China*
China National Scholarship	**Sep. 2014**
Southwest University for Nationalities	*Chengdu, China*
Meritorious Winner in American Mathematical Contest in Modeling (MCM' 14)	**Apr. 2014**
Southwest University for Nationalities	*Chengdu, China*