Ou, Changkun

Resume

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

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EDUCATION

LMU Munich	Munich, Germany
Ph.D. Media Informatics.	*Feb. 2019 – (exp.) Feb. 2023*
LMU Munich	Munich, Germany
M.Sc. Human-Computer Interaction; overall grade: 1.63 (max. 1.0) between "Very Good" and "Good"	*Oct. 2016 – Jan. 2019*
Southwest University for Nationalities	Chengdu, China
B.Eng. Computer Science; overall grade: 3.74 (max. 4.0), "Top 1 Student"	*Sep. 2012 – Jul. 2016*
University Entrance Exam	Huaihua, China
Overall grade: 512 (max. 750)	*Sep. 2000 – Jul. 2012*

PROFESSIONAL EXPERIENCE

Research Associate — Munich, Germany

LMU Munich — *Aprl. 2018 – Present*

- **As researcher**: research on human-in-the-loop machine learning graphics systems
- **As teacher**: teach 12 classes and supervising more than 20 student thesis and seminars
- **As developer**: develop, migrate, and maintain a 17 year-old university CMS system, and a 13 year-old collaborative system

Backend Software Engineer (Remote) — Munich, Germany

LabEx Technology Ltd — *Apr. 2018 – Jan. 2019*

- **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 10 months incumbency.
- **As a 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) — Munich, Germany

Rocketlingo UG — *Nov. 2017 – Mar. 2018*

- **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 CONTRIBUTION

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).

- **Go (98.3k+ stars)**: is an open sourced programming language developed by a team at Google, and have approx. 2 million developer users on global. 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 (16.5k+ stars)**: is 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 (9k+ stars)**: I am the creator of the organization. The organization currently hosts 25 projects. The organization website have 465k+ page views and 66k+ historical viewers in total since Sep 2020.
- **The TalkGo community (15.9k stars)**: 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.
- **Go: Under the Hood (3.7k stars)**: I am the author of this open sourced book. The book discusses advanced Go programming, principles of underlying algorithms etc. Writing in progress.
- **Juejin Translation Community (27.8k+ stars)**: Major contributor, translated 50+ articles from English to Chinese.
- **Occasional contributions**: Tensorflow (164+ stars), etcd (39.6k+ stars), etc.

EXPERTISE

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.