

# KE LIN

+86 137-117-15601    [✉ leonard.keilin@gmail.com](mailto:leonard.keilin@gmail.com)    [🌐 leonardodalinky](https://leonardodalinky.com)    [in LinkedIn](#)    [📄 Google Scholar](#)    [🏠 Homepage](#)

## Education

### Tsinghua University

*Master of Engineering (M.Eng.) in Software Engineering (GPA: 3.52/4.0)*

Sep. 2022 – present

Beijing, China

### Tsinghua University

*Bachelor in Software Engineering (GPA: 3.68/4.0, Top 25%)*

Sep. 2018 – Jun. 2022

Beijing, China

## Experience

### Tencent

*AI Research Intern*

Apr. 2024 – Present

Shenzhen, China

- Developed a VLLM-based pipeline for evaluating the realistic, reliability, and aesthetic of generated 3D scenes.
- Built a 2D rendering framework using Blender for generating views of 3D objects as inputs to VLLMs.
- Optimized the LLM agents to generate 3D layouts for the compositions of pre-defined 3D assets.
- Investigated the spattial reasoning capability of LLMs to produce precise 3D layouts utilizing arithmetic coordinates.

### Momenta

*AI Backend Intern*

Jan. 2021 – Apr. 2021

Beijing, China

- Developed an automated service for scheduling autonomous driving model training tasks based on Kubernetes.
- Utilized Golang to reduce redundant resource consumption and estimated the approximate cost of training sessions.
- Processed the runtime logs of training tasks and stored them into AWS Cloud Storage for visualization.
- Automated the deployment of driving models on AWS and the updating of the K8s image from the upstream repository.

## Publications

- Yiyang Luo\*, **Ke Lin**\*, Chao Gu\*, Jiahui Hou, Lijie Wen and Ping Luo. "Lost in Overlap: Exploring Logit-based Watermark Collision in LLMs." In Findings of the Association for Computational Linguistics: NAACL 2025.
  - Proposed the concept of watermark collisions, where multiple watermarks are present simultaneously in the same text.
  - Analyzed the potential risks and the vulnerability of existing watermarking techniques.
- Yiyang Luo\*, **Ke Lin**\* and Chao Gu\*. "Context-Aware Indoor Point Cloud Object Generation through User Instructions." In Proceedings of the 32nd ACM International Conference on Multimedia (MM '24).
  - Designed a GPT-aided data pipeline for paraphrasing the descriptive texts in ReferIt3D dataset to generative ones.
  - Proposed an end-to-end multi-modal diffusion model for generating in-door 3D objects into specific scenes.
  - Introduced the visual grounding task to assess the quality of an augmented scene along with other metrics.
- **Ke Lin**, Yiyang Luo, Zijian Zhang and Ping Luo "Zero-shot Generative Linguistic Steganography." In Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL 2024).
  - Presented a zero-shot approach for linguistic steganography based on in-context learning using samples of coverttexts.
  - Improved both the binary coding process and the embedding process by differential coding and annealing penalty.
  - Designd several metrics and language evaluations to evaluate both the perceptual and statistical imperceptibility.
- **Ke Lin**, Yasir Glani, and Ping Luo. "Low-Latency Privacy-Preserving Deep Learning Design via Secure MPC." In Proceedings of the IJCAI-24 Workshop on Artificial Intelligence Safety (IJCAI-AISafety 2024).
- Chao Gu, **Ke Lin**, Yiyang Luo, Jiahui Hou, and Xiang-Yang Li. "ViRED: Prediction of Visual Relations in Engineering Drawings." In Proceedings of the 2024 19th International Conference on Mobility, Sensing and Networking (MSN 2024).
  - Developed a relation prediction pipeline to differentiate between the circuit and tabular parts in engineering drawings.
  - Achieved a 10% enhancement in detection accuracy compared to prior studies on the electrical diagram dataset.

\*Equal contribution

## Projects

### Farthest Point Sampling Library | *Python, Rust, C++*

Sep. 2023

- Developed a high-performance farthest point sampling library **fpsample** for Numpy arrays.
- Achieved 100× faster than vanilla implementation in pure Numpy for simplified preprocessing of 3D point clouds.
- Published PyPI packages for easy use in x64 platforms to avoid multi-language compilations.

## Technical Skills

**Languages:** Mandarin (native), Cantonese (native) | Python, Rust, C++, Java, Golang, ReactJS, SQL

**Tools/Frameworks:** PyTorch, Blender, Ubuntu, ArchLinux, PostgreSQL