

QI LI

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EDUCATION

Tsinghua University, Beijing

Aug. '18 - present

B.Eng. in Software Engineering, School of Software

GPA: **3.93**/4.00 (Rank: **2**/92); Minor in Statistics: **4.00**/4.00

PUBLICATIONS

- **Q Li**, K Mo, Y Yang, H Zhao, L Guibas, "Learning Inter-object Functional Relationships in 3D Indoor Scenes", In submission to International Conference on Learning Representations (ICLR 2022 in submission).
- **Q Li**, Y Wang, Y Wang, H Zhao, "HDMaNet: An Online HD Map Construction and Evaluation Framework", in Conference on Computer Vision and Pattern Recognition (CVPRW 2021, **Best workshop paper nominee**).
- H Peng, H Du, H Yu, **Q Li**, J Liao, J Fu, "Cream of the Crop: Distilling Prioritized Paths For One-Shot Neural Architecture Search", in Neural Information Processing Systems (NeurIPS 2020).
- B Liu, Y Cao, T Qiu, **Q Li**, H Hu, Z Zhang, M Long, H Hu, "Negative Margin Matters: Understanding Margin in Few-shot Classification", in European Conference on Computer Vision (ECCV 2020 **Spotlight**).

RESEARCH EXPERIENCE

Stanford University

Apr. '21 - present

Research Assistant (UGVR program), Supervisor: Prof. Leonidas Guibas

Beijing, PRC

- A novel benchmark of learning indoor multi-object functional relationships based on prior knowledge and interaction policy. By learning from the interaction, our model predicts functional relationships in the AI2-Thor.

Tsinghua University

Dec. '20 - present

Research Assistant, Supervisor: Prof. Hang Zhao

Beijing, PRC

- A new benchmark of predicting local HD Map using onboard sensors, which is much more scalable than global mapping. The developed baseline method achieves high quality and consistent results on the nuScenes dataset.

Microsoft Research Asia

Jan. '20 - Sept. '20

Research Intern, Supervisor: Researcher Howwen Peng

Beijing, PRC

- Ranking candidate architectures using parameters from the supernet. Through a self-supervised training pipeline, our method improved the Kendalls Tau ranking correlation on the NAS-Bench-201 from 0.2 to 0.5.

Tsinghua University

Aug. '19 - Nov. '19

Research Assistant, Supervisor: Prof. Mingsheng Long and Researcher Han Hu

Beijing, PRC

- In contrast to positive margin in traditional tasks, we integrated negative margin to the softmax loss, to benefit the few-shot classification. Model with negative-margin can achieve SOTA on numerous few-shot tasks.

Kuaishou Technology

Jun. '19 - Aug. '19

Research Intern, Supervisor: Researcher Wenkui Ding

Beijing, PRC

- Detecting offensive content in videos acquired from the Kuaishou App using object detection and language model. Our model allowed us to detect 20% more offensive videos after synthesizing all detection models.

PROJECTS

- Collaborative-based movie recommendation systems
- Control system for two-wheeled self-balancing cars
- Wireless data transfer and ranging by sound waves
- Lost-and-Found platform for Tsinghua
- C to LLVM compiler
- piVC verifying compiler
- Multi-user chat room written in assembly
- FTP client and server
- Annotating software for segmentation and detection
- Extremely fast decision tree in Python
- RL agent to solve complex mazes
- Web page and backend for a rental platform

HONORS AND MEMBERSHIPS

- 2nd prize of the ImageNet-A Challenge in Kaggle
- 3rd prize of the Mathematical Contest in Modeling
- Toyota Fund Scholarship (Rank 3/92)
- Optics Valley Fund Scholarship (Rank 2/92)
- Hong Kong Dong Fund Scholarship (Rank 5/92)
- School Fund Scholarship of Tsinghua University
- Outstanding TA of *Social Services of College students*
- Core member of local voluntary association

SELECTED SKILLS

Computer Skills

C/ C++, Java, Python, Pytorch, TensorFlow, MATLAB, Lingo

English

TOEFL: 107/120 GRE: 323/340 (AW 3.5/6.0)