

QIANG LI

Email ◊ LinkedIn ◊ GitHub ◊ Personal Website ◊ Blog

EDUCATION

- ETH Zürich, IDEA Research Grant Student, GPA: 1.7/1.0 (Best) November 2019 - August 2020
- RWTH Aachen, M.Sc. Computer Science, GPA: 2.2/1.0 (Best) October 2017 - October 2020
- Hefei University of Technology, B.Sc. IoT Engineering, GPA: 3.6/4.0 (Best) September 2012 - June 2016

WORK EXPERIENCE

Accenture Since June 2021 -
Senior Analyst in Computer Vision and IT/OT

- Delivered ≥ 30 E2E customized supervised-learning solutions to a unified cloud innovation ecosystem, use cases variously from **anomaly detection, object classification, semantic segmentation and optical character recognition**.
- As one of RollOut Team Leads (1/3) for **BMW AIQX** client project, responsible for resolving tasks on **cloud migration and model integration, CI/CD deployment**. Collaborated with platform team to standardize inference template and delivered use case with counterparts from ≥ 10 automotive plants worldwide. Performances got recognized by clients and major news media (CNBC).
- Served as one of Sub-offering Leads (1/6) within ASG ITOT Group: specialized in **data integration and Machine Learning** topics, delivering over 10 pre-sale assets and offerings to diverse clients, including OEMs, industrial, utilities, and pharma sectors. Notable projects encompassed **Quality Inspection Visual Systems** and **Beyond Visual Line of Sight(BVLOS) Drone Show Case**. Contributed to publications accepted by renowned venues such as NeurIPS'22, ICLR'21/22, INDIN'23, and ICASSP'23.

Sinovation Ventures September 2020 - December 2020
AI Research Intern. GitHub • Toolkits: Django, GPT

- Focused on **Bert, GPT-2/3 models**, enhanced the performance of GPT-based models and CPM (Chinese pre-trained model) in 10 business scenarios.
- Developed corresponding APIs based on Huggingface Transformers. Responsible for the whole backend Django server and wrote a **technical report** about the **industrial application of GPT-3**.

ETH Zurich IMSB Prof. Dr. Manfred Claassen Group November 2019 - August 2020
Masterand. GitHub • Toolkits: PyQt, YOLO, GhostNet, FasterRCNN

- Proposed a unifying approach enabling data-driven learning of morphological characteristics of Sezary Syndrome. Finished the master thesis: Cell Morphology Based Diagnosis of Cancer using Convolutional Neural Networks, rewarded by IDEA League Research Grant from RWTH and ETH Zürich.
- The paper on cell annotation tool for single-cell morphology data has been accepted for poster presentation and a 2-minute spotlight talk at **ICLR 2021 AI for Public Health Workshop**.
- Achieved 2nd place on the **Deecamp 2020** medical track competition by CellNet software integrating with 12 algorithms and 8 data sets.

Siemens AG December 2018 - November 2019
Computer Vision Working Student • Toolkits: C++, Scikit-learn, PCA

- Data acquisition, processing, aggregation and analysis for monitoring additive manufacturing process.
- Responsible for the development of Siemens Mindsphere cloud-based MVP Maintenance App and embedded image processing software.
- Designed **PCA, KMean and Colorspace Template Matching** Algorithms for object detection and segmentation. Invited talk **In Process Control and In Situ Monitoring for AM** at the **ICAM 2020**.

SELECT PUBLICATIONS

- **Q. Li**, D. Zhang, S. Lei, X. Zhao, S. Li, P. Kamnoedboon and W. Li. *XIMAGENET-12: An Explainable AI Benchmark Dataset for Model Robustness Evaluation*. arXiv, **Preprint Under Submission**, 09.2023.
- E. Ozmermer, **Q. Li**. *Self-supervised Learning with Temporary Exact Solutions: Linear Projection*. The 21st IEEE International Conference on Industrial Informatics (**INDIN**), Full Paper, 05.2023.
- Z. Jia, **Q. Li**, Y. Lin, Y. Zhou, X. Cai, P. Zheng and J. Wang. *Exploiting Interactivity and Heterogeneity for Sleep Stage Classification via Heterogeneous Graph Neural Network*. The IEEE International Conference on Acoustics, Speech, and Signal Processing (**ICASSP**), Full Paper, 02.2023.
- **Q. Li**, C. Zhang. *Continual learning on deployment pipelines for Machine Learning Systems*. The Conference on Neural Information Processing Systems (**NeurIPS**), (DMML) Workshop, 10.2022.
- **Q. Li**, R. Hashmi. *Explainable AI: Object Recognition With Help From Background*. The International Conference on Learning Representations (**ICLR**), (CSS) Workshop, 05.2022.
- **Q. Li**, O. Corin, L. Xu. *All You Need Is Cell Attention: A Cell Annotation Tool for Single-Cell Morphology Data*. The International Conference on Learning Representations (**ICLR**), (AI4PH) Workshop, 03.2021.
- J. Haimid, **Q. Li**. *Localization and visualization of defects by PCA, KMeans, Colorspace Template Matching for Additive Manufacturing*. Technical report in Siemens AG, Oral presentation on (**ICAM**) 2020.

HONORS AND SCHOLARSHIPS

The Accenture Trained Architecture Foundation (TAF) Program, Certified TTA, 2023
The AWS Certified Cloud Practitioner in August 2021
The RWTH Stipend in IDEA League Research Grant, 2020
The Siemens Statistic/Six Sigma training in 2019, Yellow Belt Certification
The Europe BEST Engineering Competition in 2018, 2nd Prize in the case study, Europe region
The Connected Campus Idea Competition 2017 (CCIC), Top 7 in Berlin. Europe region
The Undergraduate Student with Distinction of Hefei University of Technology in 2016
The International Internet of Things (ICAN) Innovation Competition in 2014, 3rd Prize in China
The International Robocup Robot Competition in 2014, 1st Prize in China, 12th Prize in Global

TECHNICAL STRENGTHS

Computer skills	Senior: Tensorflow, AWS Cloud, Openshift, Azure Cloud Senior: Python, MySQL, PyQt, Flask, PyTorch, CI/CD Junior: C/C++, Kubernetes, Apache Kafka, Docker, ArgoCD, K9s
Languages skills	Native: Chinese Fluent: German (DSH-2), English (IELTS: B2) Intermediate: Korean

EXTRACURRICULAR ACTIVITIES

- PayLuft Zürich Fintech Startup** February 2021 - June 2021
Computer Vision Engineer Intern • Website. Toolkits: Flask, Tensorflow, Mediapipe
- Built the core application from scratch, using FaceNet, Google Mediapipe and egocentric HandNet for **biometric feature tracking and classification**.
- Top AI Camp DeeCamp2020, Sinovation Ventures and UNDP** July 2020 - August 2020
Candidate • Website.
- Completed two months of seminars and hands-on projects with all data sets from real enterprise scenarios. All workshops are taught by leading scientists, such as Andrew Ng and Kaifu Lee. Rewarded as Best Team Leader, achieved 2nd place in track 1 (AI in Public Healthcare), Top 10 out of 41 teams in five tracks.