

# QIANG LI

Email ◊ LinkedIn ◊ GitHub ◊ Personal Website ◊ Blog

## EDUCATION

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

## WORK EXPERIENCE

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

- Delivered  $\geq 30$  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** and evaluation from plant. Collaborated with platform team to standardize inference template and delivered use case with counterparts from  $\geq 10$  automotive plants worldwide. Performances got recognized by clients and major news media outlets.
- 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 cases**. 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

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- 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**), (A14PH) 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

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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

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

## EXTRACURRICULAR ACTIVITIES

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**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.