# XIN LI

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5775 Morehouse Drive, San Diego, CA 92121-1714 USA

#### **EDUCATION BACKGROUND**

Lehigh University, Department of Computer Science and Engineering

08/18/2015 - 01/19/2020

Ph.D. in Computer Science

Overall GPA: 3.97/4.00

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Peking University, School of Software and Microelectronics

09/01/2012 - 07/10/2015

Master of Engineering in Software Engineering

Overall GPA: 3.70/4.00

Qingdao Technological University, College of Computer Engineering

09/01/2008 - 06/27/2012

**Bachelor of Engineering in Software Engineering** 

Overall GPA: 85/100 Rank: 5/62

#### **RESEARCH INTERESTS**

Deep Learning, Machine Learning, Computer Vision, Autonomous Driving, Software Engineering

## **WORKING EXPERIENCE**

[Research Intern]

# 1. Qualcomm Technologies, Inc., San Diego, CA, USA

[Full time, Senior Machine Learning Engineer]

10/01/2019-Present

Manager: Dr. Yingyong Qi

Research Topic: Semantic Segmentation, Action Recognition

**Accomplishments:** (1) Developed a driver action recognition scheme for Qualcomm's driver monitoring system that was shown on the Consumer Electronics Show (CES) 2020 and the Conference on Computer Vision and Pattern Recognition (CVPR) 2020. (2) Developed schemes of Semantic Segmentation from images and videos for AI Camera Team.

# 2. Samsung Research America Inc. (SRA), Mountain View, CA, USA

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05/06/2019–08/16/2019

Mentor: Dr. Hongxia Jin, Dr. Dawei Li

Research Topic: Human Action Prediction from videos [Paper Published]

3. Qualcomm Technologies, Inc., San Diego, CA, USA

Mentor: Dr. Bolan Jiang, Dr. Shuai Zhang

05/21/2018-08/31/2018

Research Topic: Convolutional Network Decomposition [Paper Published]

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4. Qualcomm Technologies, Inc., San Diego, CA, USA

[Interim Engineering Intern]

[Interim Engineering Intern]

05/22/2017-08/13/2017

Mentor: Dr. Bolan Jiang

Research Topic: Fast Object Detection on Mobile Platform [Patent Granted]

#### **TEACHING EXPERIENCE**

Artificial Intelligence Theory and Practice (CSE327), Lehigh University

Teaching Assistant with Prof. Jeff Heflin

Spring 2018

Computer Organization and Architecture (CSE202), Lehigh University

Teaching Assistant with Prof. Jason Loew

Spring 2017

### Reviewers

• IEEE Winter Conference on Applications of Computer Vision (WACV) 2022. [Conference Reviewer]

- IEEE International Intelligent Transportation Systems Conference (ITSC) 2021, [Conference Reviewer]
- Expert Systems With Applications, Elsevier 2021. [Journal Reviewer]
- Machine Learning with Applications, Elsevier 2021. [Journal Reviewer]
- Visual Informatics, Elsevier 2021. [Journal Reviewer]
- AAAI Conference on Artificial Intelligence 2021. [Conference Reviewer]
- Knowledge-Based Systems, Elsevier 2021. [Journal Reviewer]
- IEEE Winter Conference on Applications of Computer Vision (WACV) 2021. [Conference Reviewer]
- Knowledge-Based Systems, Elsevier 2020. [Journal Reviewer]
- IEEE Winter Conference on Applications of Computer Vision (WACV) 2020. [Conference Reviewer]
- IEEE Winter Conference on Applications of Computer Vision (WACV) 2019. [Conference Reviewer]
- Efficient Deep Learning for Computer Vision (ECV) on IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2019. [Conference Reviewer]

## **PATENT**

• Bolan Jiang, **Xin Li**, Shuxue Quan, and Yunke Pan. "Combining Convolution and Deconvolution for Object Detection." U.S. Patent No. 10,628,705. 2020.

### **AWARDS**

- Silver Medal in the Peking University/Baidu Autonomous Driving competition. 01/2020.
- Qualstar Award for the excellent work in driver monitoring system development, Qualcomm. 01/2020.
- No.1 in the Unrestricted Adversarial Example Challenge (hosted by Google). 01/2019-12/2019.
- **No.1** in the ApolloScape Trajectory Prediction competition. 10/2019.
- Student Travel Grant from US National Science Foundation (NSF) to the IEEE INFOCOM 2017. 02/2017.
- **Gotshall Fellowship**, Lehigh University. 09/2015-05/2016.
- **First Prize** in the Shandong (China) Division of the "Challenge Cup" National College Student Curricular Academic Science and Technology Works Competition. 07/2011.
- **Third Prize** in the National Finals (China) of the National Collegiate Programming Contest (C Programming Language Track). 07/2011.
- **First Prize** in the Shandong (China) Division of the National Collegiate Programming Contest (C Programming Language Track). 05/2011.
- **Bronze Medal** in the Shandong (China) Division of the ACM International Collegiate Programming Contest. 05/2011.

#### **RESEARCH PUBLICATIONS**

- Xiaowen Ying, **Xin Li**, Mooi Choo Chuah. "SRNet: Spatial Relation Network for Efficient Single Stage Instance Segmentation in Videos". ACM International Conference on Multimedia (ACMMM). 2021. [**Oral**]
- **Xin Li**, Dawei Li. "GPFS: A Graph-based Human Pose Forecasting System for Smart Home with Online Learning." ACM Transactions on Sensor Networks (TOSN). 2021.
- Xiaowen Ying, **Xin Li**, Mooi Choo Chuah. "Weakly-supervised Object Representation Learning for Few-shot Semantic Segmentation." IEEE Winter Conference on Applications of Computer Vision (WACV). 2021. [Oral]
- Xin Li, Xiaowen Ying, Mooi Choo Chuah. "GRIP++: Enhanced Graph-based Interaction-aware Trajectory Prediction for Autonomous Driving". arXiv preprint. 2020.
- **Xin Li**, Xiaowen Ying, Mooi Choo Chuah. "GRIP: Graph-based Interaction-aware Trajectory Prediction." IEEE Intelligent Transportation Systems Conference (ITSC). 2019. [**Oral**]
- Xin Li, Shuai Zhang, Bolan Jiang, Yingyong Qi, Mooi Choo Chuah, Ning Bi. "DAC: Data-free Automatic Acceleration of Convolutional Networks." IEEE Winter Conference on Applications of Computer Vision (WACV).

- 2019. [**Oral + Poster**]
- Xiaowen Ying, **Xin Li**, Mooi Choo Chuah. LiveFace: A Multi-Task CNN for Fast Face-Authentication. 2018 IEEE International Conference on Machine Learning and Applications (ICMLA). 2018. [**Poster**]
- **Xin Li**, Mooi Choo Chuah. "ReHAR: Robust and Efficient Human Activity Recognition." IEEE Winter Conference on Applications of Computer Vision (WACV). 2018. [**Oral + Poster**]
- **Xin Li**, Mooi Choo Chuah. SBGAR: Semantics Based Group Activity Recognition. IEEE International Conference on Computer Vision (ICCV). 2017. [**Poster**]
- **Xin Li**, Mooi Choo Chuah, Subhrajit Bhattacharya. UAV assisted Smart Parking Solution. IEEE International Conference on Unmanned Aircraft Systems, 2017.
- Xin Li, Qinghan Xue, Mooi Choo Chuah. CASHEIRS: Cloud Assisted Scalable Hierarchical Encrypted Image Retrieval System. IEEE International Conference on Computer Communications (IEEE INFOCOM). 2017. [Oral]

Skills: Proficient in Python, C/C++, C#, Java, SQL, MATLAB; Keras, Tensorflow, Caffe, Pytorch; Android