

Qi Feng

111 Cummington Mall, Computer Science – Boston, MA, 02155
☎ (917)543-8727 • ✉ fung@bu.edu • 🔗 linkedin.com/in/qifengnyu

Research Interests

Computer Vision, Natural Language Processing, Visual Object Tracking, Machine Learning.

Education

Boston University

Ph.D. Candidate in Computer Science, Image Video Computing, GPA 4.0/4.0

Advisor: Prof. Stan Sclaroff.

Boston, MA

Present

Courant Institute of Mathematical Sciences, New York University

Master of Science in Computer Science, GPA 3.83/4.0

New York, NY

May 2017

Beihang University

Bachelor of Science in Applied Mathematics, GPA 3.52/4.0

Beijing, China

June 2015

Research Experiences

Computer Vision.....

Visual Object Tracking with Natural Language Specification

Boston University

Ph.D. Research Area

Designed new deep learning models to perform visual object tracking with natural language specification.

- **Q. Feng**, V. Ablavsky, S. Sclaroff. "CityFlow-NL: Tracking and Retrieval of Vehicles in City Scale by Natural Language Descriptions." Challenge Track 5 in the 2021 AI City Challenge.
- **Q. Feng**, V. Ablavsky, Q. Bai, S. Sclaroff. "Robust Visual Object Tracking with Natural Language Region Proposal Network." arXiv preprint, arXiv:1912.02048. Under Review.
Poster, New England Computer Vision Workshop, Brown University, 2019.
- **Q. Feng**, V. Ablavsky, Q. Bai, G. Li, S. Sclaroff. "Real-time Visual Object Tracking with Natural Language Description." In The IEEE WACV (pp. 700-709), 2020.
- **Q. Feng**, V. Ablavsky, Q. Bai, G. Li, S. Sclaroff. "Tell Me What to Track." Poster, New England Computer Vision Workshop, Harvard University, 2018.

Object Detection in Urban Scenes

Boston University

Collaboration with BU IVC Interns.

Aug. 2019 – Nov. 2019

- C. Yang, V. Ablavsky, K. Wang, **Q. Feng**, M. Betke. "Learning to Separate: Detecting Heavily-Occluded Objects in Urban Scenes." In ECCV (pp. 530-546), 2020.

Multi-view Active Learning for Human Pose Estimation

Facebook Reality Labs

Research Intern

June 2020 – Dec. 2020

Systematically extended single-view active learning strategies into multi-view by exploring the use of view consistency. Exploited the use of multi-view geometry, and proposed a novel strategy based on Geometric Consistency. Designed and implemented the active learning pipeline on Facebook Infra.

- **Q. Feng**, K. He, H. Wen, Y. Ye. "Multi-view Active Learning for Human Pose Estimation." Under Review.

Multi-view Learning

Google LLC

Software Engineering Research Intern

May 2018 – Aug. 2018

Designed a geolocation model for natural world objects which improved state of the art image classifier by more than 4%. Exploited semi-supervised approaches to geolocation models for image classification which would learn the geolocation knowledge of natural world objects from unlabeled images, which improved recall@1 by 0.5%.

Data Science.....

Using Generative Models to Hide Sensitive Information from Data

Stern, NYU

Independent Study, Supervisor: Vasant Dhar (vdhar@stern.nyu.edu)

Jan. 2017 – May 2017

Modeled and experimented that generative adversarial network (GAN) and its variants can be used to learn and generate synthetic datasets that retain the distribution of input datasets yet hide sensitive information.

Impact of Noise on Boosting

CIMS, NYU

Machine Learning Project, Advisor: Mehryar Mohri (mohri@cs.nyu.edu)

Dec. 2015 – May 2016

Focused on boosting noise model and robustness of boosting methods. Proposed a noise model based on the distribution maintained in the Adaboost. Noises are argued to be distributed over this distribution. We reported that Adaboost has a good performance with the noise we introduced.

Software Engineering Experiences

Google Inc.

Mountain View, CA

Software Engineering Intern

May 2017 – Aug. 2017

Created components that allow summaries for Google's internal data curation service to be persisted. Enhanced UI to reflect real transfer stages and curation statistics. Improved UI loading time by utilizing the persisted summaries.

Google Inc.

San Francisco, CA

Software Engineering Intern

Jun. 2016 – Sept. 2016

Created an RPC service that takes a new set of constraints and evaluate the impact of the new constraints versus existing constraints. Enabled planners/users to evaluate the impact of new or updated constraints.

Kangxin Partners (kangxin.com)

Beijing, China

IT Professional Intern

Nov. 2014 – Apr. 2015

Operated routine administrative tasks on VMware vSphere. Evaluated and adopted an e-mail relay service plan, which reduced the company's morning internet inbound congestion by 47%, by creating local caches in on-premise storage.

Honors and Awards

2017: ALERT Professional Development Award, Northeastern University.

2016: Master of Science Research Fellowship, CIMS, NYU.

2014: Scholarship for Outstanding Academic Competition Results.

2014: Microsoft Certified Associate Hyper-V Advisory Staff.

2013: Meritorious Winner of 2013 COMAP.

2013: Secondary Prize of MUMCM 2013, Beijing.

2012: Third Prize of 23rd Fengru Competition, Beihang.

2011: Outstanding Individual, School of Mathematics and System Science, Beihang.

2011: Principal Freshmen Scholarship, Beihang.

Professional and Teaching Activities

Reviewer: for WACV, CVPR, ECCV 2020-2021.

BU CS 542 Machine Learning: by Professor Kate Saenko, Teaching Fellow, Fall 2018.

BU CS 542 Machine Learning: by Professor Kate Saenko, Teaching Fellow, Fall 2017.

NYU CSCI-UA.0102 Data Structures: by Professor Anasse Bari, Teaching Assistant, Spring 2017.

NYU CSCI-UA.0102 Data Structures: by Professor Chee Yap, Teaching Assistant, Fall 2016.

Technical Skills

Programming: Java, Python and C++ . Also comfortable with C and Go.

Machine Learning: TensorFlow. Experienced in various machine learning theories and techniques.

IT Admin.: Professional Windows Administration. Microsoft Certified Associate Hyper-V Advisory Staff.