

LI, Yuqiong
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PROFESSIONAL EXPERIENCE

Inceptio Technology, *Software Engineer*, Fremont CA, Aug 2019 - current

- 3D deep-learning object detection: Tensorflow implementation of bev-based algorithms from scratch. Achieved mAP of 87%.
- Ported trained model to vehicle middleware using Tensorflow C API for real-time detection (10hz).
- Efficient data pipeline : lidar data collection, parsing, curation; annotation schema design; automate the process with infrastructure team.

AI4CE (AI & Civil Engineering) Lab, NYU, *Research Intern*, New York, Dec 2018 – May 2019

- Research on 3D object generation with neural networks: FoldingNet, PointNet, ResNet, VAE, DC-GAN, 3D-GAN. Work include extensive literature review; data preprocessing (mesh, point cloud, voxel, DEM); data base management (a PostgreSQL geo database of a few million records); quick model prototyping with PyTorch, OpenCV, CUDA. A first authored paper accepted by a CVPR 2019 Workshop (Oral).

PepsiCo, *Data Science Intern*, New York, Jun – Aug 2018

- Designed and implemented a database of ~300 GB customer clickstream data on AWS and MS SQL Server. Running benchmark SQL queries and proposed the best indexing scheme.
- Built an automated sales forecasting system in Python to analyze, visualize and predict product sales on Amazon.com. Presented to the e-commerce leadership team in the New York office.

PUBLICATIONS

Li, Y., Zhao, H., Yu, Z. & Feng, C. (2019). “RealCity3D: A Large-scale Georeferenced 3D Shape Dataset of Real-world Cities” *CVPR Workshop Oral Presentation*, California, US, 16-20 June 2019. <https://scene-understanding.com/papers/RealCity3D.pdf>

EDUCATION EXPERIENCE

New York University, *M.S. in Data Science*, May 2019

The University of Hong Kong, *B.Sc. in Statistics (First Class Honors)*, 2015.

PROJECTS

GPU and high performance computing: *Parallel Programming with CUDA and PyTorch*, Fall 2018

- Various performance comparison benchmarks implemented with C, CUDA C, cuDNN, and PyTorch.
- Coded a distributed convNet on multi-GPUs with asynchronous SGD update using PyTorch MPI backend.

Parallel programming and MapReduce: *Big Data Algorithms with Spark*, Fall 2017

- Implemented item-based collaborative filtering, PageRank, min-hash, and k-means algorithms from scratch on PySpark. Multiclass classification on the 20NewsGroup dataset with Spark mllib.

SKILLS

Programming: Python. C++/C. CUDA. PyTorch. Tensorflow. Linux. ROS. OpenCV. Spark / Hadoop. MPI. SQL. SAS. R.

Databases: PostgreSQL. MySQL. MongoDB.

Computer Science: Algorithm and Data Structure. Operation Systems. Object-oriented programming.

Data Science: Statistics and probability; supervised and unsupervised machine learning models; natural language processing.