Jing Luo

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Education

Yale University   **New Haven, CT**
- M.S. in Computer Science. GPA: 3.8/4.0   *August 2018 – May 2019*
- Relevant coursework: Object-Oriented Programming, Operating Systems, Optimization Techniques, Data Mining and Machine Learning, Natural Language Processing, Deep Learning Theory and Applications.

Shanghai Jiao Tong University   **Shanghai, China**
- B.Eng. in Computer Science. GPA: Overall: 90.3/100 (Ranking: 5%) | Major: 92.8/100   *August 2014 – July 2018*
- Relevant coursework: Calculus, Linear Algebra, Probability, Algorithms & Data Structures, Artificial Intelligence, Software Engineering, Computer Networks, Database Systems, Compiler Techniques, Linux Kernel.

Nanyang Technological University   **Singapore**
- Exchange student, School of Computer Science and Engineering. GPA: 4.8/5.0   *August 2016 – December 2016*

Work Experience

Quora, Machine Learning Platform Team   **Mountain View, CA**
Software Engineer   *July 2019 – Now*
- **Counters migration**: Rebuilt the counter system for querying stats in `C++` services based on a new backend – `folly::QuantileEstimator`, a state-of-the-art approach that has high precision and requires no configurations.
- **Feed reliability optimization**: Added canary deployment for feed service, which would shadow certain traffic to a canary tier and check whether the new deployment would cause any downtime. Implemented fallback feed to improve user experience by presenting some unpersonalized content when the site is down.
- **Backend storage improvement**: Migrated HBase for feed data storage to use Amazon EC2 I3en instances which would both enhance network bandwidth and reduce cost in comparison to the old I3 instances. Removed deprecated feed indexes and saved more than 2TB of storage space in HBase.

Megvii (Face++), Model Computing Group   **Beijing, China**
Student Intern | Mentor: Xiangyu Zhang   *January 2018 – July 2018*
- Launched and deployed a distributed multi-task learning platform. With a parameter server and several task sites, the platform implemented joint training over different data sources, which helped Megvii win four world titles in Joint COCO and Mapillary Recognition Challenge at ECCV 2018.

Microsoft Research Asia, Visual Computing Group   **Beijing, China**
Research Intern | Mentor: Jifeng Dai   *September 2017 – January 2018*
- Optimized the deformable ConvNets. Contributed to the release of official implementation based on the latest Gluon API of MXNet. Tested the performance of this detection framework with various backbone networks.

University of Oxford, Computational Health Informatics Lab   **Oxford, UK**
Research Intern | Advisor: Prof. David Clifton   *June 2017 – September 2017*
- Proposed multi-label learning on tuberculosis genes. Applied variational auto-encoder on bacteria genetic data to learn latent representation for cluster analysis and built machine learning models to predict drug resistance.

Skills & Projects

Programming

Proficient: `C`, `C++`, `Python` | **Intermediate**: `Java`, `SQL`, `Matlab`, `R`, LaTeX | **Basic**: `JavaScript`, `PHP`, `HTML/CSS`
Platforms & Tools: HBase, Grafana, Graphite, Kibana, Kubernetes, Tensorflow, PyTorch, Numpy, OpenCV

Competition Experience

- **Mathematical Contest in Modeling 2017: Modeling Toll Plaza Behavior**
  Applied queueing theory to toll collection and merging to optimize toll plaza design. Meritorious Winner.
- **Kaggle Playground Prediction Competition: Dog Breed Identification**
  Designed a classifier by fine tuning `inception-v3` model and ranked 5/500+ in the leaderboard.

Side Projects

Codes are available at `https://github.com/Jing-Luo`
- **BASIC Interpreter on Cortex-M4** | `C`   *Embedded System Design*
- *Elema,* **an Online Food Ordering System** | `SQL`, `PHP`, `JavaScript`   *Database Systems*
- *SingBiker,* **an Android Navigation App for Singapore** | `Java`   *Software Engineering*
  Demo video: `https://www.youtube.com/watch?v=iixvHfOsals`
- **Light-weight CNN Model Design for Faster and Better Object Detector** | `Python`   *Bachelor's Thesis*