Yuntian Lan

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EDUCATION

BA in Computer Science & Physics, Cornell University, May 2019 Graduation
4.0 Cumulative GPA; Dean's List
Relevant Courses: Analysis of Algorithms, Computer Vision, Machine Learning, Artificial Intelligence, Database Systems, Operating Systems, Systems Programming, Python, Java OOP, Functional Programming in OCaml

EXPERIENCES

Technology Summer Analyst **May 2018 – August 2018**
Goldman Sachs Group, Inc. New York, NY

- Actively involved in a team of seven on developing an ad-hoc trading analysis system, focusing on backend
- Designed the project backend by analyzing data sources and researching intermediate database candidates
- Configured and deployed the Elasticsearch cluster as the intermediate storage for multiple data sources
- For light-weighted data sources, coded and deployed jobs on firm scheduler to populate Elastic cluster daily with upstream trade data
- For heavy data sources, implemented the java adaptor that translates between frontend / backend DSL and handle incoming requests using Vert.x and ReactiveX

Undergraduate Researcher **January 2018 – Present**
Advisor: Bharath Hariharan, Cornell Computer Science Department, Ithaca, NY

- Reproduced result of state-of-the art technology on fine-grained pose prediction on the CUB 200 dataset
- Addressed the problem of pose variation in image classification by anchoring 15 features in network
- Conducted key-point extraction and relevant pre-processing on over 12,000 images through PyTorch
- Improved the training time and cost through transfer learning by performing logistic regression on feature maps generated through pre-trained ResNet-18 model
- Investigating different mechanisms for automated key-point recognition given limited amount of training data

Teaching Assistant **August 2016 – Present**
Cornell Computer Science Department, Ithaca, NY

- Assist professors' lectures in Machine Learning, Algorithm Analysis, Discrete Structure, and Java / Python OOP
- Provide feedback on exam questions and write up homework solution sketches
- Nominated as outstanding undergraduate course staff for the 2017-2018 academic year

PROJECTS

Ithaca Map [codes] **February 2018 – May 2018**

- Main contributor in a group of four members in building an OCaml map application for Ithaca with functions resembling Google Map, including interactive UI, location searching, path finding and attraction recommendation
- Took leading role in overall project design and work delegation as well as communication between team members
- Built the server side using Cohttp library to achieve a RESTful API responding to client requests
- Implemented the backend logic through various algorithms and data structures: JSON parser to handle raw data, prefix tree (TRIE) for search auto-completion, k-d tree for 2-D searching, and A* algorithm for path finding

Deep Learning Library [codes] **June 2017 – Dec 2018**

- Initiated and designed the structure for a public DL repository written in Python with NumPy
- Implemented most of the basic and popular layers in deep learning
- Designed the layer structure to enable simple and fast training integration and customization
- Achieved comparable speed and accuracy with popular libraries like PyTorch and Tensorflow on lightweight networks and high accuracies on CIFAR-10 dataset

PROGRAMMING SKILLS

Proficient	Python, Java, OCaml
Familiar	Swift, C, SQL, PHP, Julia, CSS, HTML