Jun Li

PhD Candidate at Oregon State University

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"Be the change that you want to see in the world."

Objective

I am currently seeking a postdoc position in machine learning. My career goal is to become a faculty in the area of machine learning after my postdoc. My research interests lie in theoretical machine learning. In particular, my current research areas cover deep learning, optimization, Bayesian learning, information geometry, as well as their applications in meta-learning and computer vision. My research interest in the long term is to apply mathematical techniques, e.g. functional analysis, group theory, to modern machine learning.

Education

Oregon State University   *Corvallis, OR, US*

Ph.D. candidate in Computer Science   *Sep. 2017 - Now*

- Research direction:optimization in deep learning, information geometry, meta-learning, video segmentation.

Washington State University   *Pullamn, WA, US*

Ph.D. student in Computer Science   *Aug. 2015 - Aug. 2017*

- Research direction: machine learning, deep learning, optimization.

Fudan University   *Shanghai, China*

B.S. in Mathematics   *Sep. 2006 - Jun. 2010*

- Main Courses: linear algebra, calculus, probability, abstract algebra, ODE, real variables functions, complex variables functions, topology, functional analysis

Ongoing and Future Research

Information Geometry in Meta-Learning

Use information geometrical perspectives in meta-learning in order to get better explanations and better learning strategies.

Optimization on Riemannian Manifolds

Learn differentiable optimization algorithms on non-Euclidean structured problem, e.g. constrained optimization, graph data learning.

Functional Analysis in Neural Architecture Searching

Apply functional analysis to differentiable neural architecture searching, i.e. analyzing the optimal condition of neural architecture in the functional space.

Publication

Jun Li, Sinisa Todorovic. Set-Constrained Viterbi for Set-Supervised Action Segmentation (**CVPR 2020**).
Jun Li, Fuxin Li, Sinisa Todorovic. Efficient Riemannian Optimization on the Stiefel Manifold via the Cayley Transform (**ICLR 2020**).
Jun Li, Peng Lei, Sinisa Todorovic. Weakly Supervised Energy-based Learning for Action Segmentation (**ICCV 2019 Oral**).
Jun Li, Yongjun Chen, Lei Cai, Ian Davidson, Shuiwang Ji. Dense Transformer Networks for Brain Electron Microscopy Image Segmentation (**IJCAI 2019**).

Awards

ICCV 2019 travel award
ICLR 2020 travel award

Work Experience

Amazon
Corvallis, OR, US

Machine Learning Research Intern
Jun.2020 - Sep.2020

Aibee
Palo Alto, LA, US

Machine Learning Research Intern
Jun.2019 - Sep.2019

- Improved numerical optimization for speeding up training of eid classification.
- Implemented model distillation for speeding up inference of reid classification.

Ctrip
Shanghai, China

Advanced Machine Learning Engineer
Feb.2015 - Aug.2015

- Implemented room and hotel ranking and recommendation.
- Implemented user profile analysis.
- Created interview question bank compilation.

MadHouse
Shanghai, China

Machine Learning Engineer
Mar.2014 - Feb.2015

- Implemented algorithms for CTR estimation.
- Implemented algorithms for the Ecpm ranking.
- Implemented online algorithms for target advertising.

Spreadtrum
Shanghai, China

Graphic Algorithm Engineer
Mar.2013 - Mar.2014

- Implemented object animation with opengl on mobile App.
- Implemented object lighting with opengl on mobile App.

Xiangyou Digit Corporation
Shanghai, China

Software Engineer
Jan.2012 - Mar.2013

- Implemented an online game platform and several games.
- Implemented a game server and client on a TV show.

VAV
Shanghai, China

Statistician
Jul.2010 - Jan.2012

- Implemented statistical analysis algorithms digital audience rating.
- Implemented a software for audience rating computing and visualization.
- Implemented algorithms for IPTV massive data analysis.