Xinshi CHEN

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● https://xinshi-chen.github.io/

EDUCATION

Georgia Institution of Technology   2017-present
Ph.D. in Machine Learning
- Thesis Supervisor: Prof. Le Song

Chinese University of Hong Kong   2015-2017
M.Phil.(Master of Philosophy) in Mathematics
- Supervisor: Prof. Eric Tsz Shun CHUNG
- Awarded the Postgraduate Studentship for 24 months
- Thesis: Parametric FEM for Shape Optimization [arxiv]

Chinese University of Hong Kong   2011-2015
Bachelor of Science, Mathematics
- College Head's list - for outstanding academic performance in the year 2013/14
- Professor Charles K. Kao Research Scholarship in 2013/14
- Attended **ETH Zurich, Switzerland** as an exchange student for one semester
- Ranked Top 0.1% among 300,000 science students in the National College Entrance Exam

PUBLICATION

Conference & journal

1. **RNA Secondary Structure Prediction By Learning Unrolled Algorithms**
   Xinshi Chen, Yu Li, Ramzan Umarov, Xin Gao, Le Song
   International Conference on Learning Representations (ICLR) 2020, **Oral** [paper]

2. **GLAD: Learning Sparse Graph Recovery**
   Harsh Shrivastava, Xinshi Chen, Binghong Chen, Guanghui Lan, Srinvas Aluru, Le Song
   International Conference on Learning Representations (ICLR) 2020 [paper]

3. **Efficient Probabilistic Logic Reasoning with Graph Neural Networks**
   Yuyu Zhang, Xinshi Chen, Yuan Yang, Arun Ramamurthy, Bo Li, Yuan Qi, Le Song
   International Conference on Learning Representations (ICLR) 2020 [paper]

4. **Generative Adversarial User Model for Reinforcement Learning Based Recommendation System**
   Xinshi Chen, Shuang Li, Hui Li, Shaohua Jiang, Yuan Qi, Le Song
   International Conference on Machine Learning (ICML) 2019 [paper|github|video|slides|poster]

5. **Particle Flow Bayes' Rule**
   Xinshi Chen*, Hanjun Dai*, Le Song
   International Conference on Machine Learning (ICML) 2019 [paper|github|video|slides|poster]

6. **A distinct class of vesicles derived from the trans-Golgi mediates secretion of xylogalacturonan in the root border cell**
   Pengfei Wang, Xinshi Chen, Cameron Goldbeck, Eric Chung, Byung-Ho Kang
   The Plant Journal 2017 [paper]

Preprints & Workshop

1. **Can Graph Neural Networks Help Logic Reasoning?**
   Yuyu Zhang*, Xinshi Chen*, Yuan Yang*, Arun Ramamurthy, Bo Li, Yuan Qi, Le Song
   NIPS 2019 Workshop in KR2ML [arxiv]

2. **Review: Ordinary Differential Equations For Deep Learning**
   Xinshi Chen
   A literature review, in partial fulfillment of PhD qualifying exam requirements, 2019 [arxiv]

3. **Master Thesis: Parametric Finite Element Method for Shape Optimization**
<u>Xinshi Chen</u>, Eric Chung
CUHK Theses & Dissertations Collection 2017 [arxiv]

EXPERIENCE

Ant Financial (subsidiary of Alibaba), Hangzhou, China 2018/06-2018/08
Research intern in AI department
- Worked on financial news recommendation
- A Part of the ICML 2019 paper for recommendation system

Oak Ridge National Laboratory, United States 2014/06-2014/08
REU Research Intern
- Mentor: Dr. Joshua Fu, Dr. John Drake and Dr. Kwai Wong
- Solve diffusion-convection equation based on finite element method
- Title: Modeling Chemical Transport with Galerkin Methods [Project link]

ACADEMIC SERVICE

- Voluntary organizer for 2018 High School Math Competition (held in Georgia Tech)
- Program Committee / Reviewer: AAAI 2020, ICLR 2020, AISTAT 2020

AWARD

- ICML Travel Award, 2019
- Postgraduate Studentship, CUHK, 2015-2017
- Best oral presentation in 3rd AoE(Area of Excellence) Symposium, 2016
- Professor Charles K. Kao Research Scholarship, 2013-14
- College Head's list - for outstanding academic performance, 2013-14
- Undergraduate Exchange Scholarship, 2013

TEACHING

School of Math, Georgia Institution of Technology

MATH2551	Multivariable Calculus	(Recitation, Teaching)	Fall, 2017

Department of Mathematics, Chinese University of Hong Kong
Spring, 2018

MATH3230	Numerical Analysis	(Tutorial)	Fall, 2016
MATH3240	Numerical Methods for Differential Equations	(Tutorial)	Spring, 2016
MATH2010	Advanced Calculus I	(Tutorial)	Spring, 2016
MATH3230	Numerical Analysis	(Tutorial)	Fall, 2015
MATH1510	Calculus for Engineers	(Tutorial)	Fall, 2015

Enrichment Programme for Young Mathematics Talents

SAYT1054	Mathematical Analysis	(Discussion Group)	2013/11-2014/02

SKILLS

Language	**Mandarin** (native) **Cantonese** (native) **English** (fluent)
Computer	PyTorch, Tensorflow, SQL, C++, C, Matlab, LaTex, LINUX.

EXTRA-CURRICULUM

Volunteer Experience
- Bronze Award for Volunteer Service(Individual) 2012 - *issued by HK Social Welfare Department*
- Gold Award for Volunteer Service(Group) 2012 - *issued by HK Social Welfare Department*
- Overall Best Mainland Service Project 2011/12 - *Caring Heart Community Service Project*

Certificates
- Completion of the Mental Health First Aid Course (certified by MHFA International)
- Advanced Open Water Diver (certified by PADI)

Hobbies
Dancing, diving, yoga, skiing, etc.