

## Yufan Xu

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### CONTACT INFORMATION

1021 University VLG,  
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### EDUCATION

**University of Utah**, Salt lake City, Utah USA (GPA 4.0)

Ph.D Student, Computer Science, August, 2019 - Now

**The Ohio State University**, Columbus, Ohio USA (GPA 3.71)

Ph.D Student, Computer Science, August, 2017 - August, 2019

**University of Florida**, Gainesville, Florida USA (GPA 3.65)

M.S., Computer Science, May, 2016

**Soochow University**, Suzhou, Jiangsu China (GPA 3.50)

B.Eng., Software Engineering, May, 2014

### PUBLICATION

**Effective Performance Modeling and Domain-Specific Compiler Optimization of CNNs for GPU**

*PACT 22*

- [Yufan Xu](#), Qiwei Yuan, Erik Curtis Barton, Rui Li, P. Sadayappan, Aravind Sukumaran-Rajam

**Training of Deep Learning Pipelines on Memory-Constrained GPUs via Segmented Fused-Tiled Execution**

*CC 22*

- [Yufan Xu](#), Saurabh Raje, Atanas Rountev, Gerald Sabin, Aravind Sukumaran-Rajam, P. Sadayappan

**Efficient Distributed Algorithms for Convolutional Neural Networks**

*SPAA 21*

- Rui Li, [Yufan Xu](#), Aravind Sukumaran-Rajam, Atanas Rountev, P. Sadayappan

**Analytical characterization and design space exploration for optimization of CNNs**

*ASPLOS 21*

- Rui Li, [Yufan Xu](#), Aravind Sukumaran-Rajam, Atanas Rountev, P. Sadayappan

**Dependence-aware, unbounded sound predictive race detection**

*OOPSLA 19*

- Kaan Genç, Jake Roemer, [Yufan Xu](#), Michael D. Bond

### RESEARCH EXPERIENCE

**Research Assistant**

*University of Utah*

**August, 2019 - Now**

- Worked on search space optimization in TVM
- Worked on design space exploration for optimizing CNN for GPUs
- Worked on memory efficiency for large input on ML system (pytorch)
- Worked on opmin optimization pass for tensor contraction in CCSD benchmark on MLIR
- Worked on a tile-size optimization problem for affine programs in polyhedral model.

### TEACHING & ADVISING

**Course Instructor**

*The Ohio State University*

**Fall, 2018, Spring, 2019**

- Instructor for two semesters of *CS1223 Introduction to Computer Programming In Java*.

- Taught the general concepts of computer programming and programming languages by providing practical experience programming in the Java.

### Teaching Assistant

*University of Utah*

**Spring, 2020**

- Teaching Assistant for *CS 6230 Parallel Computing and HPC*.
- Planned course project, graded assignments and projects.

### WORKING EXPERIENCE

**LatentAI** , Princeton, NJ, USA

Compiler Engineer(Intern) May, 2022 - August, 2022

**T-CETRA** , Columbus, OH, USA

Software Engineer(Intern) May, 2019 - August, 2019

**Fairchild Semiconductor**, Suzhou, JS, China

Application Engineer(Intern) May, 2014 - August, 2014

### SERVICE

ASPLOS '21, '22 AE committee

### HONORS AND AWARDS

Achievement Award Scholarship for New Engineering Graduate Students, 2014, 2015

Outstanding Undergraduate Award, 2014

Science and Technology Innovation Scholarship, 2014

Honorable Mention, Mathematical Contest in Modeling, USA, 2013

Provincial Second Prize, China Undergraduate Mathematical Contest in Modeling, 2012

Provincial Third Prize, National Software Designing Contest(C/C++), China, 2013

People Comprehensive Scholarship in Soochow University, 2011, 2012, 2013, 2014

### COMPUTER SKILLS

- Programming Languages: Java, C++, C, Python