# Zhipeng Jia

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### INTRODUCTION

I am a Systems Research Engineer at Google. I am part of Google Cloud's research team, SystemsResearch@Google (SRG).

Previously, I obtained my Ph.D. in Computer Science from The University of Texas at Austin, where I was advised by Emmett Witchel.

#### **EDUCATION**

The University of Texas at Austin, Austin TX - Department of Computer Science

M.S. in Computer Science, Aug 2017 — Dec 2021

Ph.D. in Computer Science, Aug 2017 — May 2022

Dissertation: Designing Systems for Emerging Serverless Applications

Committee: Emmett Witchel (supervisor), Christopher J. Rossbach, Simon Peter, Jason Flinn, and

Mahesh Balakrishnan

Tsinghua University, Beijing - Institute for Interdisciplinary Information Sciences (IIIS)

B.Eng. in Computer Science and Technology, Aug 2013 — Jun 2017

### **PUBLICATIONS**

#### **DGSF: Disaggregated GPUs for Serverless Functions**

Henrique Fingler, Zhiting Zhu, Esther Yoon, **Zhipeng Jia**, Emmett Witchel, Christopher J. Rossbach

The 36th IEEE International Parallel and Distributed Processing Symposium (IPDPS 2022), 2022

# **Boki: Stateful Serverless Computing with Shared Logs**

Zhipeng Jia, Emmett Witchel

The 28th ACM Symposium on Operating Systems Principles (SOSP '21), 2021

# Nightcore: Efficient and Scalable Serverless Computing for Latency-Sensitive, Interactive Microservices

**Zhipeng Jia**, Emmett Witchel

The 26th ACM International Conference on Architectural Support for Programming Languages and Operating Systems (ASPLOS '21), 2021

**Telekine: Secure Computing with Cloud GPUs** 

Tyler Hunt, **Zhipeng Jia**, Vance Miller, Ariel Szekely, Yige Hu, Christopher J. Rossbach, Emmett Witchel

The 17th USENIX Symposium on Networked Systems Design and Implementation (NSDI '20), 2020

#### Isolation and Beyond: Challenges for System Security

Tyler Hunt, **Zhipeng Jia**, Vance Miller, Christopher J. Rossbach, Emmett Witchel The 17th Workshop on Hot Topics in Operating Systems (HotOS XVII), 2019

#### Constrained Deep Weak Supervision for Histopathology Image Segmentation

**Zhipeng Jia**, Xingyi Huang, Eric I-Chao Chang, Yan Xu IEEE Transactions on Medical Imaging, 2017

# Large Scale Tissue Histopathology Image Classification, Segmentation, and Visualization via Deep Convolutional Activation Features

Yan Xu, **Zhipeng Jia**, Liang-Bo Wang, Yuqing Ai, Fang Zhang, Maode Lai, Eric I-Chao Chang BMC Bioinformatics, 2017

#### **Efficient Near-optimal Algorithms for Barter Exchange**

**Zhipeng Jia**, Pingzhong Tang, Ruosong Wang, Hanrui Zhang 16th International Conference on Autonomous Agents and Multiagent Systems (AAMAS-17), 2017

# Deep Convolutional Activation Features for Large Scale Brain Tumor Histopathology Image Classification and Segmentation

Yan Xu, **Zhipeng Jia**, Yuqing Ai, Fang Zhang, Maode Lai, Eric I-Chao Chang 40th International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2015

#### **EXPERIENCE**

Google, Seattle WA - Systems Research Engineer

Jul 2022 - now

- Member of Google Cloud's research team, SystemsResearch@Google (SRG)
- SRG is led by David E. Culler, former EECS Chair of UC Berkeley, and Henry M. Levy, former Head of the Allen School for Computer Science & Engineering at UW

#### Katana Graph, Austin TX - Software Engineer Intern

May 2021 - Aug 2021

- Katana Graph is an Austin-based startup focusing on high performance graph processing and analytics, founded by UT professors Keshav Pingali and Christopher J. Rossbach
- Worked on transaction support for large-scale graph updates

#### Google, Sunnyvale CA - Research Intern

May 2019 - Aug 2019

- Worked with Platform team
- Worked on the project of understanding RPC latency in Plaque

# **Google, Mountain View CA** - Software Engineering Intern

May 2018 - Aug 2018

- Worked with Google News team
- Launched new machine learning-based news labeling system

# Microsoft Research Asia, Beijing - Research Intern

Mar 2016 - Jun 2017

- Worked with Technology Strategy group under the mentorship of Dr. Eric Chang
- Involved in the project of sleep analysis with Microsoft Band
- Involved in the project of automatic analysis of large-scale medical images
- Awarded Star of Tomorrow Internship Award

# Google, Mountain View CA - Software Engineering Intern

Jul 2015 - Sep 2015

- Worked with Machine Perception team under the supervision of Dr. Hui Fang
- Designed and implemented a deep-learning-based image enhancement framework

### Microsoft Research Asia, Beijing - Research Intern

Feb 2014 - Mar 2015

- Worked with Technology Strategy group under the mentorship of Dr. Eric Chang
- Involved in the project of automatic analysis of large-scale medical images
- Involved in the project of Chinese OCR specialized for recognition of subtitles

#### **HONORS & AWARDS**

2017 - 2021	Provost's Graduate Excellence Fellowship, The University of Texas at Austin
2013 - 2017	Outstanding Freshman Scholarship (second prize), Tsinghua University
2017	Star of Tomorrow Internship Award, Microsoft Research Asia
2015	Gold Medal in the 2015 ACM-ICPC Asia EC-Final Contest (ranking 7th out of 267)
2014	Gold Medal in the 2014 ACM-ICPC Asia Shanghai Regional Contest (ranking 3rd out of 132)
2014	Gold Medal in the 2014 ACM-ICPC Asia MuDanjiang Regional Contest (ranking 2nd out of 146)
2013	Gold Medal in the 2013 ACM-ICPC Asia Changsha Regional Contest (ranking 4th out of 182)
2012	Gold Medal in the 2012 National Olympiad in Informatics (ranking 3rd out of 292)
2011	Gold Medal in the 2011 National Olympiad in Informatics (ranking 6th out of 294)
2010	Gold Medal in the 2010 National Olympiad in Informatics (youngest gold medalist)
2009	Gold Medal in the 2009 National Olympiad in Informatics (youngest gold medalist)