Zhipeng Jia

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INTRODUCTION

I currently work at Anthropic as a Member of Technical Staff.

Previously I worked at Google on systems research, in particular GenAl systems.

I hold a Ph.D. in Computer Science from The University of Texas at Austin. Before the Ph.D., I obtained my bachelor's degree from Tsinghua University.

I have extensive experience in low-level C++ programming, and Jax / Python programming.

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 (Yao's Class), Aug 2013 — Jun 2017

FULL-TIME EXPERIENCE

Anthropic, Seattle WA - Member of Technical Staff

Jun 2025 - now

Google, Seattle WA - Senior Systems Research Engineer

Jul 2022 - May 2025

- Part of Google Cloud's <u>AI & Systems Research team</u>, which supports innovations for Google's AI infrastructure (e.g. LLM serving stack, cluster scheduler, and TPU hardware)
- As part of the team, I work on innovations of GenAl systems
- At Google, I report to <u>Henry M. Levy</u>, former Head of the Allen School for Computer Science & Engineering at The University of Washington

PUBLICATIONS (Google Scholar)

Impeller: Stream Processing on Shared Logs

Zhiting Zhu, **Zhipeng Jia**, Newton Ni, Dixing Tang, Emmett Witchel

The 20th ACM European Conference on Computer Systems (EuroSys 2025), 2025

Boki: Towards Data Consistency and Fault Tolerance with Shared Logs in Stateful Serverless Computing

Zhipeng Jia, Emmett Witchel

ACM Transactions on Computer Systems, Volume 42, Issue 3-4, 2024

The Key Ideas Behind Boki's Shared Logs

Zhipeng Jia, Emmett Witchel

ACM SIGOPS Operating Systems Review, Volume 58, Issue 1, 2024

Disaggregated GPU Acceleration for Serverless Applications

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

ACM SIGOPS Operating Systems Review, Volume 57, Issue 1, 2023

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

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)

INTERNSHIP EXPERIENCE

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

- 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