Chongyang Xu

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Research Interest

I am primarily interested in computer systems research, specifically in graph processing and machine learning systems. My key interests include efficiency and scalability.

Education

Max Planck Institute for Software Systems / Saarland University — Saarbruecken, Germany
Ph.D. student, Advisor: Dr. Laurent Bindschaedler — *2022.06 - present*

Beihang University — Beijing, China
Master, School of Computer Science and Engineering, Advisor: Prof. Zhongzhi Luan — *2017.09 - 2020.06*

Shandong University — Shandong, China
Bachelor, School of Software Engineering, Rank: 3% — *2013.09 - 2017.06*

Research Experience

Max Planck Institute for Software Systems, Ph.D. student — 2023.03 – Present
Data Systems Group**, Advisor: Dr. **Laurent Bindschaedler — *Saarbruecken, Germany*

- Efficient large scale graph neural network training
- Exploration in compound AI systems.

Max-Planck-Institute for Informatics, Ph.D. student — 2022.06 – 2023.02
Network protocol characterization — *Saarbruecken, Germany*

Intel China Research Center Company, System Software Engineer — 2020.07 – 2022.05
VTG-ICG, Characterizing and improving Intel IPU6 software performance for Linux. — *Beijing, China*

Beihang University, Research Assistant — 2017.09 – 2020.06
Sino-German Joint Software Institute, Advisor: Prof. Zhongzhi Luan — *Beijing, China*

- Optimizing challenging irregular workload (Hoeffding tree) on GPUs.
- Performance measurement of convolution neural network (CNN) inference.

Posters

- **Chongyang Xu**, "**Towards scalable data serving for GNN training**," in ACM Student Research Competition at SOSP 2023, Koblenz, Germany, 2023-10
- **Chongyang Xu**, Laurent Bindschaedler, "**Towards scalable data serving for GNN training**," in Poster session at CMMRS 2023, Saarbruecken, Germany, 2023-08

Teaching Assistant

- Operating Systems, MPI & Saarland University — Summer Semester 2024
- Systems for Large (Language) Models , MPI & Saarland University — Winter Semester 2023/2024

Skills

Programming Language: C, C++, Cuda; some familiarity: Python, Java, Rust
Systems and tools: Linux, docker, gdb, Pytorch, DGL, Tensorflow
Languages and others: Chinese(native), English (fluent), German(beginner); academic presentation

Projects before 2020

large scale text processing for stock trend prediction | *Java, Python* March 2017 – June 2017

- crawling and analysing financial information web page, undergraduation design

RealFly | *C++,Java,C#* June 2015 – November 2015

- virtual experience of helicopter piloting via drones, VR and 3D sensing, team project

OfficeCoder | *C#* January 2015 – May 2015

- Microsoft Word add-ons generating Apps per functional description in natural language, team project

AWARDS & HORNORS

Honors & Awards

• VTG Divisional Recognition Awards Q4 2021, Intel	2022.01	
• Dean's Scholarship	2017.06	Top 1%
• Outstanding Graduates	2017.04	Top 10%
• Advanced individual in Innovation and Entrepreneurship	2016.05	Top 12%
• Shandong University First Prize Scholarship	2015.12	Top 5%
• Shandong University Merit Student	2015.12	Top 5%
• National Scholarship	2015.11	Top 2%
• Shandong University Second Prize Scholarship x2	2014/2016.12	Top 15%
• National Encouragement Scholarship X2	2014/2016.12	Top 30%

Competetion & Award

• Google Student Innovation Project (total 27 projects nationwide)	2016.12	
• National College Students Innovation and Entrepreneurship Training Project	2016.05	1st Prize
• Intel Cup National Collegiate Software Innovation Contest	2015.11	2nd Prize
• Microsoft Imagine Cup 2015 Global Student Technology Competition	2015.05	2nd Prize
• Qilu Contest of Software Design	2014.11	2nd Prize