# 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

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|---|---|
| **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

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| **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

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|---|---|
| **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

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|---|---|
| - 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**

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|---|---|---|
| • 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**

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|---|---|---|
| • 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 |