An Zhong

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EDUCATION

Jilin University

Changchun, China

Sep.2021 - July 2025(expected)

B.S. in Computer Science and Technology

• Overall GPA: 3.86/4.00 Rank: 5/374

• Core Courses: Computer Architecture (93),Operating System(91),Microcomputer System (96.7),Compiler Principle and Implementation(92.3),Computer Control of Technology (97),Foundation of Artificial Intelligence (100),Fundamentals of Programming(94),Probability and Statistics A(97)

RESEARCH EXPERIENCE

Acceleration of microarchitecture-level fault injection process for GPUs

Sep. 2023 - April 2024

Research Intern

Advisor: Jingweijia Tan, Jilin University & Guanpeng Li, University of Iowa

- Revealed the relationship between early fault behaviors with final fault outcomes.
- Proposed a fast and accurate error resilience evaluation framework GEREM for GPU microarchitecture.

Software Simulation and Hardware Alignment with O3 CPU Pipeline Implementation Sep. 2024 - Dec 2024 Research Intern Advisor: Jian Weng, KAUST

- Conducted a literature review to identify challenges in cycle-accurate simulation and hardware alignment.
- Implemented an out-of-order CPU pipeline using a unified programming framework, achieving precise alignment between simulation and RTL.

PROJECTS

Estrus Detection in Beef Cattle via Multimodal Learning

Oct.2022 - May 2023

National College Student Innovation Training Program

Advisor:Hui Kang, Jilin University

- Reviewed multimodal learning approaches for binary classification and latest approaches for estrus detection.
- Designed a model using both behavioral data and image inputs for accurate estrus identification.

Enabling Software Compatibility on Domestic Operating Systems

Jan. 2024 - April 2024

cooperative project with Zhongke Fangde Software Co., Ltd.

Advisor: Huaxiao Liu, Jilin University

- Collaborated in the adaptation of open-source software on domestic OS.
- Developed RPM SPEC files and conducted build tests with Koji, ensuring cross-platform compatibility.

PUBLICATIONS

GEREM: Fast and Precise Error Resilience Assessment for GPU Microarchitectures

Jingweijia Tan*, Xurui Li, **An Zhong**, Kaige Yan, Xiaohui Wei, Guanpeng Li

IEEE Transactions on Parallel and Distributed Systems, 2024 (CCF-A), Under Major Revision

Honors and Awards

• National Inspirational Scholarship (¥5000)

2022

• Outstanding Student of the University (Top 5%)

2022, 2023, 2024

• Provincial First Prize, National College Student Mathematical Modeling Competition (Top 10%)

2022

• Second Prize, Huawei Software Elite Challenge (Beijing-Hebei Northeast Division)

2023

• Huawei Scholarship Nominee (Top 5 in the University)

2024

SKILLS

• **Programming:** C,C++,Python,Shell,SQL,CUDA