Xiangpeng Hao

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EDUCATION

University of Wisconsin Madison, Wisconsin, US
Ph.D. in Computer Science Sept. 2020 - June. 2025(expected)

Simon Fraser University, Vancouver, Canada
Bachelor of Science (Dual Degree), Computer Science Sept. 2017 - June. 2020

Zhejiang University, Hangzhou, China
Bachelor of Engineer (Dual Degree), Computer Science Sept. 2015 - June. 2020

RESEARCH EXPERIENCE

Research Assistant in Database Group Vancouver, CA
Advisor: Prof. Tianzheng Wang Dec. 2018 - Present
Researched on data-intensive systems and related topics that impact the design of database systems, especially how persistent memory will impact the database index design.

Research Assistant in Computer Vision Group Vancouver, CA
Advisor: Prof. Brian Funt Feb. - Dec. 2018
Researched on colour constancy algorithms and related topics that guide the colour constancy research.

Teaching Assistant for Operating System Vancouver, CA
Explaining theory behind modern operating systems to 2nd-year May - Aug. 2019
Undergraduate student and guiding them in lab practicals.

PUBLICATIONS

Xiangpeng Hao, Lucas Lersch, Tianzheng Wang, Ismail Oukid. **PiBench Online: Interactive Benchmarking of Persistent Memory Indexes** *: 45th International Conference on Very Large Data Bases (VLDB 2020)[under review]*

Baotong Lu, **Xiangpeng Hao**, Tianzheng Wang, Eric Lo. **DASH: Dynamic and Scalable Hashing on Persistent Memory**. *45th International Conference on Very Large Data Bases (VLDB 2020)*

Lucas Lersch, **Xiangpeng Hao**, Ismail Oukid, Tianzheng Wang, Thomas Willhalm. **Evaluating Persistent Memory based Range Indexes.** *45th International Conference on Very Large Data Bases (VLDB 2020)*

Xiangpeng Hao, Brian Funt, Hanxiao Jiang. **Evaluating Colour Constancy on the new MIST dataset of Multi-Illuminant Scenes.** *27th Color Image Conference, oral preview (CIC 2019)*

Xiangpeng Hao, Brian Funt. **A Multi-illuminant Synthetic Image Test Set.** *Color Research and Application*

RESEARCH PROJECTS

Open-source BzTree Implementation Dec. 2018 - May 2019
Implemented a fully-functional BzTree in C++ and benchmarked on both main memory and persistent memory. Extended PMwCAS to allow safe allocation, and also extended its API so that PMwCAS can support more real world use cases.

Spectral Renderer July. - Dec. 2018
Extended Blender Cycles to allow physically-accurate spectral rendering. It is the first and only rendering engine that supports texture spectral rendering, and it is used to

generate physically colour-accurate images that help the computer vision community.

AWARDS

Inaugural CRSC Student Award for Canadian Colour Research	May 2020
Sciences Undergraduate Research Student Award (VPR)	May 2019
SFU Undergraduate Open Scholarship	
SFU Entrance Scholarship	Sept. 2017
China National VEX Competition (Gold medal, captain)	Jul. 2015