# 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 May - Aug. 2019

Explaining theory behind modern operating systems to 2nd-year 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 (Demo): 45th International Conference on Very Large Data Bases (VLDB 2020)

> 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
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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