

HANWEN SHEN

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Actively Seeking 2020 Summer Internship in Computer Vision/Software Engineering

EDUCATION

Johns Hopkins University

Baltimore, MD

· **M.S.E. in Computer Science**

April 2019 - May 2021 (Expected)

Beijing Institute of Technology

Beijing, China

· **B.S. in Computer Science**

Sep 2015 - Jun 2019

· Overall GPA: 89.02/100 (3.83/4.00), Major GPA: 90.93/100 (3.90/4.00), Outstanding Graduate Student (10%)

· Relevant Courses: Data Structure & Algorithm Design, Comprehensive Training for Software Engineering, Linux Programming, Image Processing Technology, Database Systems Development, Modern Data Analysis, Object-Oriented Programming

TECHNICAL STRENGTHS

Computer Languages

C/C++, Python, MATLAB, Java, C#, HTML

Software & Tools

OpenCV, OpenCL, Linux, Git, MySQL, PyTorch, Unity3d, Photoshop

EXPERIENCE

Beijing Laboratory of Intelligent Information Technology

Beijing, China

Bachelor's Thesis Design Project—Contour-based Stereo Matching

Dec 2018 - Jun 2019

- Conducted research investigation on stereo matching and implemented algorithms of classical papers using MATLAB
- Proposed a novel constraint of correspondent pixels based on geometry observation made easy by aligned-contours from two input images, resulting in more accurate occlusion judgement during optimization process
- Improved the performance of classical algorithms by 30% on Middlebury Stereo Vision data sets
- Planned to incorporate deep learning with this method to achieve better overall performance in the future

Software Intelligence Laboratory of Beijing Institute of Technology

Beijing, China

Research Assistant—Human Pose Estimation Based On Deep Learning

Nov 2018 - Jan 2019

- Finished a human pose estimation project to demonstrate real-time human pose with virtual characters in Unity3d
- Combined depth information provided by a single stereo camera with the 2D coordinates estimated by CMU OpenPose library
- Established a simple socket connection to solve the data transmission problem between C# and C++
- Achieved a performance of 25 fps and prompted the project to be adopted by a private company

PerfXLab Technology Co., Ltd.

Beijing, China

Software (Computer Vision) Intern—Open-Source PerfCV Project

Jul 2018 - Sep 2018

- Contributed to an open-source simplified OpenCV library using C and OpenCL by compiling and analyzing OpenCV source code, and achieved higher efficiency on GPU, leading to applications on video-stitching

Software Intelligence Laboratory of Beijing Institute of Technology

Beijing, China

Research Assistant—Optical Axis Automatic Calibration System

May 2018 - Jul 2018

- Built an optical axis automatic calibration system, featuring a data processing module, a UI module, and a motor-control module
- Utilized object-oriented method to build the software in C# and used camera SDK to collect and display laser data
- Added crosses to demonstrate the target centre with each frame, meanwhile managed to synchronize the whole procedure
- Tested and debugged the whole system, and prompted it to be accepted by Beijing Remote Sensing Equipment Research Institute

Neusoft

Beijing, China

Software Engineering School Intern—Linpop Chatting Tool Project

Aug 2017 - Sep 2017

- Designed and maintained a database for a lightweight chatting software using MySQL under Linux environment, also provided C function interface to the server end, supporting multi-needs including group chat

HONORS & AWARDS

Outstanding Bachelor's Thesis, Beijing Institute of Technology, 2019

Third Prize of 2019 College Students AI Camp, China Center for International People-to-People Exchange, 2019

Champion of Luzhanqi in University Computer Games Championship, China Association of Artificial Intelligence, 2017