

崔欣

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教育背景

天津大学 智能与计算学部 计算机技术 - 硕士（推免） 09/01/2019 - 01/15/2022
学信网验证号码: A0459R5GQTVCKTAG 加权成绩: 86.2/100.0

中国矿业大学 计算机科学与技术学院 计算机科学与技术 - 本科 09/01/2015 - 06/19/2019
学信网验证号码: ALUN382HMH5V8H3 成绩: 4.23/5.00, Top 3.27% (6/183) 英语 CET6 471 / CET4 528

工作经历

英特尔（中国）研究中心有限公司 Computer Vision Engineer 02/28/2022 - 至今

第二阶段: C++软件开发 GPU Software Dev in GPU Algo Teams 09/01/2023 - 至今

- 负责编写并维护一个集显 GPU 框架, 其接受从 driver 传递来的一帧 buffer, 该 buffer 来自 CPU 或来自 GPU (D3D11/12, Level0), 通过用户 UI 的选择, 可以调用框架里集成多个图象算法, 包括 Face Detection, Background Blur 和 User Framing; 其产品已经应用到 Microsoft Surface 平板摄像头, Teams 视频会议, Win11 MTL 平台自带的 Camera App.
- 本人负责两个算子模块的实现:
 - 图象旋转 Rotater 算子实现, kernel 实现基于 SIMD C for Metal 框架实, 1D buffer 输入到 2D Buffer 输出, 目前已经实现在 PTL 平台的 Camera Driver Module 中。
 - 集成联想第三方的去噪算法库, DX12 Heap 1D buffer 输入, DX12 Heap 1D buffer 输出, 目前已经集成到 LNL 平台的 Camera Driver Module 中。

第一阶段: 测试开发 Code Scanning Daily in Validation Teams 02/28/2022 - 08/31/2023

- 负责产品源代码和编译包的扫描任务, 熟练掌握 Klocwork, Coverity, BDBA, CodeQL, Protex 五种扫描工具在 Windows, Linux, ChromeOS, HKR 环境的配置部署, 测试扫描脚本 (Python) 独立撰写 (每个平台大约 1500 行代码), 并因成功完成 Coverity 替换 Klocwork 工具的出色表现获得 Intel 2023 Thank-You RSU Reward.



实习经历

英伟达半导体科技(上海)有限公司 (Nvidia Shanghai) 10/08/2021 - 11/15/2021

在测试部门从事产品检测工作, 包括对各版本 GPU 加速工具 TensorRT, cuDNN, NVIDIA 优化框架 (TensorFlow, PyTorch, MxNet) 的白盒测试, 从而提升 NVIDIA 深度学习软件产品的性能.

中国航天科工二院 706 所 03/02/2021 - 07/15/2021

针对工业软件测试云平台项目来实现后端中间件和扩展件开发, 中间件使用 Java 开发, 扩展件使用 Python 开发; 扩展件分成单机测试扩展件和分布式多机测试扩展件, 以此来扩展自动化图像测试工具 Sikulix 的网络联通功能.

科研论文

IEEE TCSVT 2022 (CCF-B) 07/03/2022 Accepted

Semi-supervised Image Deraining Using Knowledge Distillation

本人为第一作者, 采用半监督方法 (计算真实雨线和合成雨线的 KL 散度+知识蒸馏) 实现的单图像去雨线。

PRICAI 2021 (CCF-C) 08/09/2021 Accepted

Semi-supervised Single Image Deraining with Discrete Wavelet Transform

本人为第一作者, 采用 LSTM 结合 ResAttention 进行背景层和雨线层的分离, 并通过哈尔小波变换提取 HH, HL, LH 三个分量上的判别损失, 以增强背景层的纹理细节。

荣誉获奖

Intel 2023 Thank-You RSU Reward 11/08/2023

2019 届中国矿业大学优秀本科毕业设计 06/19/2019

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Education

TJU College of Intelligence and Computing 09/01/2019 - 01/15/2022
Computer Technology - Master (Entrance Exam-Free Recommendation)
GPA: 86.2/100.0

CUMT College of Computer Science and Technology 09/01/2015 - 06/19/2019
Computer Science and Technology - Bachelor
GPA: 4.23/5.00, Top 3.27% (6/183)

Work Experience

Intel China Research Center Ltd. 02/28/2022 - Now

C++ Software Developer in GPU Algo Teams 09/01/2023 - Now

- Responsible for writing and maintaining a integrated graphics framework that accepts a frame buffer passed from the driver, which comes from the CPU or GPU e.g. D3D11/12, Level0. Through user UI selection, multiple image algorithms can be integrated into the framework, including Face Detection, Background Blur, and User Framing. Its products have been applied to Microsoft Surface tablet cameras, Teams video conferencing, and the Camera App included with the Win11 MTL platform.
- I am responsible for the implementation of two operator modules:
 - Implement Image Rotator calculator. Kernel function implementation based on SIMD C for Metal framework with 1D buffer input to 2D Buffer output, which implemented in the Camera Driver Module of the PTL platform currently.
 - Integrate a third-party denoising algorithm library from Lenovo. With DX12 Heap 1D buffer input, DX12 Heap 1D buffer output, the module has been integrated into the Camera Driver Module of the LNL platform.

Code Scanning Developer in Validation Teams 02/28/2022 - 08/31/2023

- Having taken charging of source code and binary package scanning tasks, I am proficient in the configuration and deployment of five scanning tools, such as Klocwork, Coverity, BDBA, CodeQL, Protex in Windows, Linux, ChromeOS, and HKR environments. I has finished test scanning scripts with python independently, approximately 1500 lines of code per platform, and received the Intel 2023 Thank You RSU Award for successfully replacing Klocwork tools with Coverity.



Internship experience

NVIDIA Semiconductor Technology (Shanghai) Co., Ltd 10/08/2021 - 11/15/2021

Software Testing Intern

GPU Software testing and test automation improvement for NVIDIA Deep Learning Software products, such as cuDNN, TensorRT, NVIDIA optimized Frameworks. Be responsible for functionality, and performance tests in DLSW stack release. Work with development teams to triage issues, root cause analysis, verify fixes, define new tests, improve test plans.

CASIC 706 Beijing Institute of Computer Technology and Application 03/02/2021 - 07/15/2021

Software Development Intern

The configuration of Python interpreter, OpenCV, OpenGL piglit environment by using source code on Neokylin Linux. Extended Sikulix functionality with distributed multi-machine collaborative extension achieved indepently by Python and Java.

Paper/Award

Semi-supervised Image Deraining Using Knowledge Distillation IEEE TCSVT 07/03/2022 Accepted

Semi-supervised Single Image Deraining with Discrete Wavelet Transform PRICAI 2021 08/09/2021 Accepted

Intel 2023 Thank-You RSU Reward 11/08/2023

Undergraduate Excellent Graduation Project 06/19/2019