

# QIANG HAN

Software Development Engineer

+86 13811001112

qiang.han@hotmail.com

/in/qiang-han

github.com/qiang-han

## SUMMARY

Experienced Software Development Engineer with a Master's degree in Communication Information Engineering. Specializes in camera imaging, multimedia, and cloud networking software development. Successfully led project development, practiced Agile methodologies as a Scrum Master, and drove innovation in complex technical environments.

## SKILLS

**Languages:** C, C++, Bash, Python

**Technologies:** Linux, Docker, Kubernetes, Camera & Imaging, Media Transportation, Networking

## PROJECTS

Technical  
Leader

### Media Communications Mesh

<https://github.com/OpenVisualCloud/Media-Communications-Mesh>

Led the development of an efficient, low-latency, and high-throughput media transport service mesh framework, optimizing for microservices architectures. Collaborated with architects to fine-tune design and led project development and management, ensuring milestones were met. Implemented key features such as zero-copy transportation, SMPTE 2110 standards, NMOS integration, and Kubernetes orchestration.

Technical  
Leader

### E2E Media Pipeline

Led the development of the "E2E Media Pipeline" program, delivering a benchmarking tool to develop a reference media pipeline for Intel platforms. Developed key features using the FFmpeg "libav" library, including performance and quality benchmarking, parallel running model, and high configurability. Instrumental in analyzing media performance on existing and next-gen "Xeon" platforms.

Technical  
Leader

### Camera Automated Test Suit

Designed and developed a comprehensive automated test framework for Intel's high-end camera and imaging systems. Fully automated the complete workflow of camera validation tasks, encompassing case management, test execution, automatic result analysis, bug auto-submission, and test report generation.

Technical  
Leader

### IPU System Test Automation

Designed and implemented an automated testing framework for Intel's Image Processing Unit (IPU) system, achieving and maintaining automation rate over 90% across 2,000+ test cases. Developed innovative automated solutions for critical IPU tests, such as ATE bit-match, static analysis (Klocwork/Protex/BDBA), and compliance testing, substantially increasing test efficiency and reliability.

Project  
Management

### Validation Project Leader

Served as the Validation Project Leader for various Intel IPU projects, managing the full validation process from requirements analysis to test case development. Expertly coordinated project schedules and resource allocation, formulated comprehensive test plans, and ensured the timely progression of both development and validation phases. Employed 'Agile' methodologies as a Scrum Master, host regular scrum meetings and was a key contributor to the scrum team.

## EDUCATION

9/2004 - 3/2007

### Master of Science in Engineering

Beihang University

Specialty: Communication Information Engineering

9/1996 - 7/2000

### Bachelor of Engineering

Tianjin Polytechnic University

Specialty: Computer Science and Application

## EXPERIENCE

11/2021 - Present

### System Software Development Engineer, NEX (Network & Edge Group)

Intel Corporation

- Develop software about multi-media, video codec, and cloud networking. Optimize software design and implementation to achieve the maximum performance on Xeon platforms.

C / C++ / Service Mesh / Kubernetes / SMPTE 2110 / NMOS / FFmpeg

2/2011 - 11/2021

### Senior Software Engineer, ICG (Imaging and Camera Technologies Group)

Intel Corporation

- Engaged in software development and validation for "Camera & Imaging" system, including design and develop test framework and test tools, test automation, validation project management etc.

C / Python / Gtk+ / OpenCV / Android / Agile

- 4/2009 – 11/2009 **Software Engineer** **Lenovo Corporate Research & Development**
- SMS client, OSD components on "Skylight" mobile device.  
Linux / C / Gtk+ / OpenEmbedded
- 5/2007 – 4/2009 **Software Engineer** **Beijing Peking University Unity Microsystems Technology Co., Ltd.**
- Network computer (NC) Terminals and the Servers management system
  - Digital photo frame application  
Linux / C / Gtk+
- 5/2004 – 3/2007 **Software Engineer** **China Aviation Data Communication Corp (ADCC)**  
Internship
- Data Link Gateway Server System for CAAC
  - The Surveillance System of the Flight for the Airline  
Linux / C / Gtk+ / SNMP / Oracle9i / MS VC++ / DirectX
- 7/2000 – 6/2002 **Software Engineer** **COSCO Bulk Carrier CO., LTD.**
- ERP system for company daily business management  
ASP / JavaScript / VBScript / IBM DB2 / SQL Server 2000

## INNOVATION

---

- E2E Media Pipeline for Platform Performance Evaluation & Optimization - SWPC, 2022
- Automated SWQRC Report in ICG Dashboard System - SWPC, 2019
- Hybrid Camera Simulation Solution for Pre-Silicon Development - DTTC, 2017
- Intellectual Test Case Selection Strategy - SWPC, 2017
- Smart Light Booth Based on Intel Edison - I2R, 2016
- Deploy Test Management System using Intel Internal Cloud Service - SWPC, 2016
- Network Management System Based on AgentX Extensible Network Management Model - Application Research of Computers, 2006

## LANGUAGES

---

**English** - proficient, **Chinese** - native