# LAWRENCE HUI

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## CAREER PROFILE

Senior quality assurance (QA) director with extensive experience leading system assessments and product development across entertainment, media, online marketing, and healthcare companies in the technology industry. Deep knowledge in QA automation and system implementation, including design, construction, customization, and maintenance of automation frameworks. Contributed to concept and development of popular off-the-shelf consumer electronics, including Google Chromebooks and LeapFrog products. Collaborative leader, building and managing teams in the U.S., Canada, and Asia.

**Areas of expertise:** QA automation, Machine Learning /Artificial Intelligence (M/AI), QA methodology, QA testing, system implementation, project management, team leadership, collaboration, software, hardware, problem solving

## KEY ACCOMPLISHMENTS

- Led transition at IPG Mediabrands from software-based system to SaaS platform, equipping engineering leads with technical training and skills to read and write code (Java and Python).
- Designed automation framework, in partnership with third-party development team, to create cloud-based ecosystem for medical test device at Talis Biomedical, using Selenium WebDriver with TestNG.
- Spearheaded cross-functional team collaboration at Synaptics, Inc., to develop and produce set of touchscreen gestures for Linux kernel (ChromeOS- and AndroidOS-based devices). Tested all firmware.
- Managed successful conversion of Windows to Linux in 2K+ DVDPlay kiosks across U.S. and Canada. Improved kiosk uptime 55% to 85%, decreased service calls 50%, and increased per DVD revenue 75%.

## WORK EXPERIENCE

**STRONGARM TECHNOLOGIES** (200-person, safety science co.), Brooklyn, NY        2022-PRESENT
**Senior Director of Quality Assurance**
*Executive Leadership and Team Development*
- Led team of remote staff (U.S. and India-based) in building world class testing center to enable end-to-end QA automation across entire organization (ML/AI, mobile, web, platform, embedded, data, and production).
- Created hardware and software Center of Excellence, collaborating across multifunctional teams to address pain points, presenting plan to company-wide audience and earning support to implement.
- Standardized interviewing process, providing staff training to ensure fair and efficient techniques.

*Strategic Planning*
- Designed transition of hardware manufacturing from Asia to U.S., identifying process gaps and developing Mult sourcing strategy for components and subsystems that increased production reliability.
- Introduced design reviews and key performance indicators (KPIs), increasing domestic manufacturing 0% to 70% in 6 months.
- Collaborated with product management, engineering, and client teams to prioritize, plan, and execute testing activities focused on continuous integration/continuous delivery (CI/CD) and DevOps.

*Project Management and QA Methodology*
- Managed concurrent testing projects utilizing stakeholder dashboard to monitor progress and trends.
- Led automation projects and maintenance sprints, delivering high quality products against deadlines.
- Presented weekly reports to C-suite executives, communicating automation process progress, identifying solutions to overcome obstacles, and adjusting steps to meet target goals.

**IPG MEDIABRANDS**, San Francisco, CA                                       2019-2022
**Director of Quality Engineering**
*Strategic Planning and Management*
- Led project engineering as regional director of quality for Asia, building company's premier Unity product line and driving $500M revenue streams.
- Managed team of engineers in Malaysia, overseeing daily automated tests and reporting via Testrail.
- Advanced technical capacity to read and develop code, training and successfully converting QA engineers

and leads to automation engineers in 12 months. Plan received senior leadership approval.

*QA Automation and System Implementation*
- Created and maintained automation frameworks for ML/AI, reporting, and campaign bookings in Java, JavaScript, and Python, and test cases in Jira.
- Transitioned CI/CD system in Jenkins from Docker to Kubernetes containers with code repos in GitHub and GitLab.

**TALIS BIOMEDICAL** (200-person, biotechnology research company), Menlo Park, CA          2018-2019
**Quality Assurance Manager**
*Project Management and Stakeholder Engagement*
- Collaborated with hardware and firmware teams to develop firmware and SaaS ecosystem from remote settings to complete end-to-end (E2E) testing.
- Implemented delivery system allowing contract manufacturer (CM) to flash latest ML/AI, firmware and software directly into medical specimen test devices.

**GOOGLE**, Mountain View, CA          2015-2018
**Senior Quality Assurance Engineer**
*Development and Testing*
- Performed manual and automated test cases for ML/AI, BIOS, embedded component (EC), and Power (PD/PMIC) for all Pixel devices running AndroidOS, Chromebooks running ChromeOS, and Chrome web browser for end-to-end testing.
- Built and executed automated test framework for RESTful web services (APIs) and backend distributed ETL microservices, using SoapUI, LoadUI, and Swagger.

**ATHEER LABS** (200-person software development platform), Mountain View, CA          2014-2015
**Quality Assurance Manager**
*Strategic Planning and Staff Development*
- Built QA team of 15 leads and engineers from ground up, implementing workflow and methodology revisions to improve processes.
- Collaborated with Engineering VP on yearly forecasting project and technical requirements development.
- Hired team of 6 quality engineers, embedding staff with 1-2 developers to create and write QA automation test cases.

**LEAPFROG ENTERPRISE**, Emeryville, CA          2012-2014
**Senior Software and Firmware QA Engineer**
*Management and Testing*
- Led comprehensive testing of firmware and hardware in interactive children's devices.
- Managed and mentored domestic team of 8 QA engineers and offshore team of 105 employees in Vietnam, conducting quarterly review of automated code using Gerrit.

**Synaptics, Inc.** - Santa Clara, CA          2007-2012
**SOFTWARE FIRMWARE QA ENGINEER**
Software and firmware QA Engineer testing touchpad drivers and touchpads for laptop and Smartphone products.

- Performed unit testing of firmware for touchpads and touchscreens, before the products get to the customer.
- Managed non-Windows projects, from OS drivers to kernel-level drivers.
- Created and write test plan and test cases for all projects and features.
- Developing and creating test methodology; and test plan for kernel.org open source submission using Android OS.
- Successful migration and mentoring of Linux driver testing to offshore SQA team.
- Documented all SQA procedures and flowcharts for ISO9001.
- Written over 150 test cases for FWQA testing on protocols and buses on PS/2, RMI/I$^2$C, MEP/I$^2$C, MEP/M3W, and MEP/SPI.

**DVDPlay** - Campbell, CA.                                                      2003-2007
**SENIOR SOFTWARE QA ENGINEER**
Software QA Engineer testing software and firmware for a franchise-based DVD kiosk systems for chain stores.

- Weekly testing of UI, server, database, and payment system, using Junit, WinRunner, LoadRunner, and a combination of C++, PERL, and JavaScript.
- Successfully setup an issue-tracking system for SQA team using JIRA.
- Created and write test plan and test cases for all projects and features, including credit payment and processing.
- Created manufacturing tests for manufacturing floor (credit card reader and robotic arm).
- Successfully managed conversion of kiosks from Windows to Linux to over 2000 kiosks across the US and Canada.  Resulted kiosks uptime from 55% to 85%, a 50% decrease in service calls, and a 75% increase in per DVD revenue.

**Previous roles:** Software QA Engineer, Electron Economy, Cupertino, CA; Software Engineer, AdForce, Cupertino, CA; Member of Technical Staff II, Sun Microsystems, Menlo Park, CA

## EDUCATION

- **Bachelor of Science**, Computer Science | University of Arkansas | Little Rock, AR
- **Bachelor of Arts**, Mathematics | University of Arkansas | Little Rock, AR

## ADDITIONAL INFORMATION

- **Certifications:** Six Sigma Yellow and Green Belt, Scrum Master, Solaris Systems Administrator, Institute of Electrical and Electronics Engineers (IEEE)
- **Protocols:** PS/2, RMI, MEP, A3W, M3W, SPI, DHCP, HTTP, HTTPS
- **Interfaces:** GPIO, NAND, NOR, I2C/SMBUS, SPI, NVMe, M3W, A3W
- **OS/Bootloader:** Linux, Android, ChromeOS, U-boot, fastboot, Windows, Solaris, UNIX, CentOS
- **Software Languages:** JAVA, C, C++, Visual C++, JavaScript, Python, SQL, XML, bash
- **Tools:** adb, gdb, Jenkins (Docker and Kubernetes), Selenium/WebDriver, Selenium, Appium TestNG, SoapUI, LoadUI, Swagger, Labview Junit
- **Quality Management Systems (QMS):** Oracle Agile, Arena, Master Control
- **Spoken Languages:** English (fluent), Chinese (fluent), French (fluent)