

## Contact

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## Top Skills

Real-time Control Systems

C Programming

Core Java

# Ashutosh Thakur

Senior Test Automation Engineer | Scalable & Flexible Automation Framework, Testing Strategies  
Cupertino, California, United States

## Summary

Experienced Technology Leader | Problem Solver | Innovator

As a technology leader, I specialize in solving business-critical challenges through innovative solutions that cut costs, streamline processes, and deliver high-impact results. My expertise spans test automation for operating systems and storage, real-time embedded systems for process automation, telephony, and avionics. I bring both technical depth and leadership, managing projects essential to business success.

### Technical Expertise & Innovation

I consistently drive efficiency and flexibility, delivering solutions that maximize value and operational agility.

Reduced storage test automation costs by 46% using virtualization of bare-metal test hosts, leveraging deep knowledge of hardware and connectivity.

Transitioned test automation frameworks from C++ to Python, accelerating development and aligning with product cycles.

Developed RESTful APIs for remote diagnostics and VMware support, boosting customer support capabilities.

Ensured HP-UX interoperability with key storage partners (EMC, Hitachi, IBM, Sun) and validated solutions, enabling sales teams to secure deals.

Spearheaded the HP-UX 11i SCSI stack revamp, achieving seamless automation and minimizing escalations.

Created an award-winning event correlation solution for telephony billing, showcased at HP's Telephony Conference.

Led mission-critical avionics projects for the Indian Defense, including a real-time sequencer for budget and schedule compliance, enabling the Light Combat Aircraft release.

Migrated real-time process control software from MicroVAX to Intel x86 platforms, cutting delivery time and costs.

## Leadership & Project Management

With strategic vision and hands-on management, I foster trust and deliver high-stakes projects with precision.

Directed HP India's first HP-UX outsourcing project, achieving POSIX compliance and reducing escalations, paving the way for broader outsourcing.

Managed key global projects at Wipro, India, for clients seeking high-quality, complex solutions.

I bring a deep understanding of customer needs and a rapid ability to adapt to new technologies, approaching challenges with versatility and dedication to excellence.

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## Experience

### Hewlett Packard Enterprise

#### Senior Test Automation Engineer

September 2012 - May 2024 (11 years 9 months)

San Jose, California, United States

#### \* Automation Cost Reduction Initiative

- I spearheaded an initiative to reduce automation costs by virtualizing bare-metal test hosts.
- Investigated impacts of virtualization on existing test coverage, test configurations, failure triage, and adaptation to product features.
- Engineered a completely transparent virtualization solution that required zero change in all existing tests (over 5000) and their configurations.
- Guided the virtualization of over 200 hosts achieving 42% cost reduction.

#### \* Automation Framework for VMware environment

- Architected and implemented a comprehensive automation framework tailored for VMware environments, designed to support rigorous testing of StoreServ arrays. This framework enabled seamless VVOL integration with StoreServ, ensuring robust connectivity, interoperability, and streamlined data migration on the ESXi platform.

#### \* Automation Framework for Accelerated Test Automation

- Restructured and Optimized for Speed: Revamped a C++-based automation framework focused on complex data migration, optimizing it for rapid testing and faster execution.

- Transitioned to Python for Rapid Development: Migrated the framework to Python, resulting in quicker test development cycles and streamlined code maintenance.
- Achieved Rapid Automation Milestones: Automated over 4,000 data migration tests within six months, delivering rapid test coverage and minimizing development bottlenecks.
- Enabled High-Pace Product Testing: Empowered test teams to stay aligned with fast-paced product updates, reducing time-to-market for new features.
- Success of this initiative led the migration of additional C++-based automation libraries to Python, accelerating test automation and debugging across multiple projects.

## HP

### Technical Lead

April 2000 - August 2012 (12 years 5 months)

#### \* Orchestrated Test Automation for SCSI Stack in HP-UX 11i Release

- Directed Test Automation Development: Led the design and implementation of test automation for the 11i release of HP-UX, addressing significant changes in the SCSI stack, including drivers, multipathing, load balancing, failover, ALUA, and LUN naming.

- Championed Comprehensive Testing Phases: Oversaw all testing phases—pre-submit, integration, regression, and system testing—ensuring thorough validation of new functionalities while preventing regression.

- Facilitated Cross-Team Collaboration: Acted as a key liaison among various HP-UX test teams, including I/O stress testing, I/O performance testing, and storage testing, enhancing communication and fostering effective collaboration throughout the testing process.

#### \* Provided Technical Leadership to HP-UX Server Interoperability Program with Non-HP FC Arrays to Secure Key Customer Deals

- Defined Interoperability Layers: Established comprehensive layers of HP-UX interoperability for Fibre Channel (FC) storage arrays, tape libraries, and tape drives from leading partners, including IBM, Hitachi, EMC, and Oracle StorageTek.

- Identified Critical Testing Requirements: Assessed and defined essential testing criteria to validate interoperability across diverse systems.
- Tailored Test Suites for Robust Validation: Compiled and customized multiple test suites to rigorously ensure robust interoperability between HP-UX servers and third-party storage solutions.
- Empowered Sales Team with Winning Solutions: Equipped the sales force with versatile solutions that effectively addressed customer requirements, enhancing the competitive edge of HP-UX servers paired with various vendor storage arrays..

#### Hewlett Packard Enterprise India Private Limited

##### Senior Software Developer

August 1998 - March 2000 (1 year 8 months)

Bengaluru, Karnataka, India

- \* Engineered a pluggable event correlation engine tailored for telephony billing and diagnostic systems
- The pluggable architecture based on HP Lab designed software logic gates
- Configurable logic gates correlate relevant messages for accurate billing and diagnostic
- Showcased this innovative solution at the HP-UX OpenView Conference in Montreal, demonstrating its potential to enhance telephony system performance.

#### Hewlett-Packard India Software Operation Pvt. Ltd.

##### Project Manager

October 1994 - July 1998 (3 years 10 months)

Bengaluru, Karnataka, India

- \* Spearheaded the first offshore pilot project for HP-UX command maintenance and release in India, a strategically crucial initiative for HP India Software Organization (ISO).
- Drove the team to achieve high technical self-reliance and secure POSIX compliance certification.
- Ensured exceptional Customer Perceived Experience (CPE) quality, consistently exceeding expectations in turnaround times for customer escalations.

- Expanded the team's responsibilities to encompass additional HP-UX core products and subsystems, including command and network libraries and C compiler systems.

## Wipro

6 years 2 months

### Technical Manager

June 1990 - September 1994 (4 years 4 months)

Bengaluru, Karnataka, India

- \* Directed multiple high-impact projects for global clients across various industries, ensuring timely and effective delivery.

- Led i486-based platform interoperability testing for Intel Corp (US), ensuring seamless compatibility.

- Guided re-engineering of network drivers for 3Com (US), delivering robust connectivity solutions.

- Collaborated closely with client teams, leveraging technical expertise to meet each project's unique needs.

### System Architect

August 1988 - June 1990 (1 year 11 months)

Bengaluru, Karnataka, India

- \* Designed real-time avionics applications for the Indian Defense, adhering to strict technical and security requirements.

- \* Designed and engineered a diagnostic tool with a task scheduler tool for an i386-based system bus in a mission-critical avionics system.

- \* Developed a tool to optimize task sequencing with a scheduler that ensured strict compliance with real-time requirements.

- \* Presented the tools to high-level defense scientists, securing their approval and achieving critical project milestones.

## Center for Development of Telematics (C-DOT)

### Member of Software Development Staff

July 1988 - May 1990 (1 year 11 months)

Bengaluru, Karnataka, India

- \* Designed and developed a configurable dialing scheme for the first indigenously developed PABX system at CDoT, empowering customers to customize intra-communication systems.

- \* Implemented a driver for Dual Tone Multiplexer (DTMF) hardware, enabling speed dialing over voice lines to enhance functionality for feature phones and automated operators.

Schenck Jenson & Nicholson Ltd.

Software Development Engineer

September 1985 - June 1988 (2 years 10 months)

Ranchi, Jharkhand, India

- \* Led the development of a fully indigenous real-time process controller embedded software.

- \* Ported the real-time executive kernel from MicroVAX to a PC-based platform, enabling cross-compilation for an i286-based embedded controller system.

- \* Developed custom real-time process controller applications, achieving substantial reductions in installation and maintenance costs for customers.

- \* Earned the Employee of the Year award in recognition of this impactful achievement.

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## Education

Indian Institute of Technology, Kharagpur

B.Tech (Hons.), Electronics & Electrical Communication Engineering