

# Heramb Deware

Current Location - Pune, India

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## Career Highlights

- 22 years of experience in Software Industry on Design, Development & Test Automation.
- Successfully held various leadership positions. Managed teams of size up to 20. Managed Co-ordination between offshore teams in India and customers across USA, Europe.
- Actively participated in bringing in and employing Agile SCRUM methodologies. Played role of a scrum master.
- Experience in various business domains such as Internet Hosting Providers, Health Insurance, Farm Insurance, Materials Handling Systems, Systems programming, Audio/Video Streaming over Mobile Networks, etc.
- Represented IT Services companies at their client offices in USA, Germany, France, Switzerland, Norway, Portugal for presales, requirements gathering and analysis, project kick-offs, etc.
- Worked on several test automation projects to assess and select right test automation frameworks, create POCs, automate complex test cases, implement common functionality required by all test cases, integration with CI frameworks, analyse test execution results to find out false positives and false negatives, etc.
- Worked on multiple technology platforms and programming languages.
- Received individual and team awards for performance and quality work.

## Skills

- Exceptionally good analytical, programming, troubleshooting and software design skills
- Very good at reviewing code, designs, software architecture, etc.
- Can learn new technologies/frameworks/programming languages in few days and become productive on the same in a very short period of time.
- Several years of coding experience in C/C++, C#.Net, Java, Python, PHP, Perl, JavaScript
- Very good at writing complex SQL queries and optimizing them for performance. Worked on MSSQL, Oracle, MySQL and Postgresql database servers.
- Worked on several test automation projects for desktop, mobile and web applications, APIs. Very good understanding of Behaviour Driven Development (BDD) and the related frameworks.
- Very good project management, planning, estimation, risk analysis, impact analysis and decision making skills. Very good understanding of Agile as well as SCRUM.
- Very good at capturing, analysing and specifying software requirements, problem statements, functional specifications in a clear and concise language.

## Programming Languages, Frameworks, Tools

- Web based Application Development using Apache Web Server, PHP, HTML, CSS, JavaScript, JQuery, Kendo UI, Datatables, Yahoo UI Library, Zend PHP Framework, CakePHP Framework, NodeJS, Python, Django, etc. Very good knowledge of LAMP stack and linux administration.
- Full stack Java development using JSP, Servlets, EJB, JMS, JDBC, Java Beans, Spring-boot and other Spring framework components such as RESTful web services, Dependency Injection, MVC architecture, etc.
- Very good knowledge of Amazon Cloud Services such as Amazon API Gateway, AWS Lambda, Amazon Kinesis, Amazon DynamoDB, Amazon Cognito, Amazon SES, etc.
- Windows application development using C, C++, Visual C++, Window SDK. Very good understanding of Windows Threading API and issues related to multithreaded applications. Good understanding of Internationalization and Localization. Good experience of using Visual Studio and related development tools.
- Dot Net Application development using C#, Silverlight, WPF, ASP.NET, VB.Net, Web Services, XML, XSD, ADO.NET, VB Script, WMI
- Worked on several test automation projects using BDD for mobile, web & desktop applications. Very good experience with frameworks such as Microsoft UI Automation, Fitness with Fitsharp (C#), calabash-android (Ruby), cucumber-jvm, Selenium Web Driver, Jubula (including Client API), AssertJ Swing, SWTBot, JUnit, DBUnit, etc.
- Database Servers: MSSQL, Oracle, MySQL, PostgreSQL. Very good understanding of SQL and designing optimal database schemas. Very good knowledge of SQL Procedural languages such as Microsoft T-SQL, Oracle PL/SQL, PostgreSQL/plpgsql.
- Good experience with YourKit Java and Dot Net Profiler. Did troubleshooting of large software systems to find out memory leaks, concurrency issues and performance problems.
- Very good understanding of Static Code Analysis metrics and also using static code analysis metrics to detect the design level issues in code such as God Class, Brain Class anti patterns. Used several static code analysis tools such as Understand (SciTools), SonarQube with Java and C# plugins, cloc, dude, JDepend, PMD, CheckStyle, FindBugs, Atomiq, etc.
- Microsoft SQL Server Integration Service Packages: Good at writing SSIS packages for Import, Export and data transformations.
- Windows SharePoint Services 3.0 SDK
- Microsoft Reporting Services 2005: Good knowledge of RDL reporting language. Good at generating complex charts such as multi-level pivot tables, bar charts, etc.
- Microsoft Windows Server 2003 Active Directory Programming using .Net DirectoryServices package. (Extending Active Directory Schema programmatically as well as using LDF scripts using LDIFDE tool.)
- Programming with various Microsoft Server Products such as Microsoft Exchange Server 2003, Microsoft Internet Information Server version 6, Microsoft Operations Manager 2000 (MOM), Microsoft Internet Security & Acceleration Server 2004.
- TCP/IP socket programming using Winsock. Good Knowledge of Audio/Video Streaming Protocols such as RTSP, RTP, RTCP, RDT and 3GPP PSS Standard.
- Perl Scripting & Regular Expressions

## **Software Quality Improvement Program At Signalis, Paris**

*Client: Bitsea GmbH*

Signalis develops a product called STYRIS that is used by several nations for land, water and air surveillance for border control. My main role was to conduct software assessments on core components of the product, provide code refactoring recommendations and lead the refactoring project. I trained a team of 5 software engineers and 2 QA engineers in Paris on static code analysis, well known design flaws (anti-patterns), refactoring, etc. Explained all the refactoring recommendations that came up during the assessment to the team members. Created a project plan for incorporating the refactoring recommendations and building the unit tests and integration tests to maintain the overall functionality of the product. Demonstrated to the Signalis management, the success of the software assessment and refactoring by showcasing reduced turnaround time for bug fixes and software releases, thus reducing the maintenance costs.

## **Maintenance & Compliance of Adtrack Product from Marchex Inc**

*Client: AfourTech*

As a freelance consultant, played the role of a Project Manager as well as a Technical Architect. Managed a team of 8 software engineers and 5 Test Automation Engineers. The main task was to enable the team members in understanding the complex Perl code without much help from Marchex engineers, narrow down the scope of troubleshooting for defects and assist the team members in further troubleshooting and fixing the defects. Also coordinate with Marchex for production deployments. For compliance, came up with a strategy to port the product code from Perl version 5.10 to Perl version 5.22. Also guided the AFourTech team members in fixing and writing new unit tests as well as integration tests.

## **Enterprise Process Portal**

*Client: Acellere GmbH*

Was key member of the design and development team for developing a web based application called Enterprise Process Portal for a hosting provider from Germany. This portal is used by hundreds of users from the hosting provider for management of various business processes within their organization. The portal was developed using PHP, JQuery and numerous JQuery plugins. I played a key role in evaluating and selecting various JQuery UI plugins such as grid, calendar, scroll panes, etc.

## **PurePractice Web Application Development**

*Client: Electronic Remedy Inc*

Worked on development of core modules of a product called PurePractice. Used various frameworks and components from the latest Java development stack such as JSP, Spring framework, JSTL, Lombok, etc. Also used Apache Maven for management of the build. Developed a parser for parsing X12 EDI responses for Health Insurance Transactions such as Eligibility and Claims. This was a generic parser to parse any of the standard X12 EDI responses. Developed a re-usable data grid component (JQuery Plugin) using JQuery and Kendo UI Template. Also developed some of the key UI pages using JQuery, Kendo UI and various other JQuery UI plugins. Designed and developed a notification system

for sending various notifications from the PurePractice application. Integrated Amazon Simple Email Service with the same.

## **yetu App Store design & development**

*Client: Acellere GmbH*

Lead a team of software architects and requirement analysts from Acellere. Together we visited yetu office in Berlin for understanding the requirements and participated in architecture discussions. Helped the client (yetu) and the Acellere team in coming up with the architecture goals. Had several sessions going through numerous use cases. Created the software architecture and low level design for App store front end and backend. Also contributed to the development of the prototype for App store.

## **yetu - Optimization of Pl/pgsql Stored Procedures**

*Client: Acellere GmbH*

Optimization of plpgsql (Postgresql) stored procedures for a Berlin based startup. This startup is building a smart electricity meter for detecting appliances within a home based on characteristics of electrical currents. They had a prototype implemented by their own team which could not scale beyond 100 smart meters and the bottleneck was a couple of stored procedures involved in collecting smart meter data every second and aggregating the same data. My role was to analyse the stored procedure source code, find out performance issues, suggest and implement solutions to fix the performance issues. With the improvements suggested and implemented by me, the same solution now scales up to thousands of smart meters.

## **InventoryOnRoll.Com**

*Client: Sanjay Tools & Accessories Private Limited*

Singlehandedly developed the InventoryOnRoll.com B2B platform for dealers & distributors of industrial consumables. The main aim of this platform was to enable the dealers of industrial consumables to share their dead inventory with each other at national level. The platform allowed updating of inventory as well as searching of inventory. Although initially it was used for industrial consumables and specifically for dead inventory, the platform itself was capable of being used for any sort of goods and any kind of buyers and sellers could participate. This product was developed for Sanjay Tools & Accessories Private Limited from Pune. Later it went into legal issues with the manufacturers as the dealers had contracts with manufacturers for not selling to each other. As a result the site was shut down. The platform was developed using PHP, MySQL and Yahoo UI library.

## **SingleID.Net**

*Client: SingleID.Net*

Implemented an OpenID 2.0 Provider site called SingleID.Net using PHP, Apache and MySQL. Apart from OpenID protocol features, the site has features like registration, email verification, feedback, etc. The site is now shutdown because the idea did not pick up.

## **Biblio Cockpit Architecture & Design**

*Client: Acellere GmbH*

I was involved in doing the basic architecture and design for a distributed product based on .Net technologies such as WCF, WPF, Silverlight, etc. The product is used to monitor and control RFID based materials handling devices such as Automatic Checking Systems, Book Return devices and Gate Trackers used in book libraries. This product was developed for one of the largest Materials Handling Equipment and Software Company from Switzerland. Visited Acellere customer office in Cham, Switzerland two times for requirements gathering. Also visited a huge book library in Monchengladbach, Germany as part of the same project.

## **Key Test Automation Projects**

### **API Test Automation Framework Development for Cloud Based Siemens Products**

*Client: Siemens*

Developed a test automation framework for automated testing of various micro services implemented by Siemens products such as “Manufacturing Intelligence” and “Manufacturing Performance”. The framework supported various features such as calling REST over HTTP APIs, AWS Cognito User pool authentication, JSON comparison for results verification, etc. The framework is being actively used by two development tools to implement the test automation. The framework is extensible and supports extension points for various authentication providers such as Amazon Cognito user pool, Windows Authentication, etc.

### **FitNesse/FitSharp & Microsoft UI Automation integration for WPF Test Automation**

*Client: ZA*

The client already had several Java applications test automated using FitNesse. They wanted to automate a WPF application within the same test collaboration tool. I developed a FitSharp plugin and used Microsoft UI Automation framework as underlying test automation framework. This was quite successful and much appreciated because the client was able to use the same test collaboration tool across multiple applications developed using Java and C#-WPF.

### **Code Coverage**

*Client: SQS GmbH*

As a team lead, provided guidance to SQS team on a C++ Code Coverage testing project. My responsibilities included: Understanding complex C++ application used for installing patches and software updates across multiple stores of a retail chain in UK. Training 8 resources from SQS on C++, Win32 APIs, Multi-Threading and unit testing skills. Train the resources on Code Coverage concepts in general and using BullsEye code coverage tool. Writing of automated tests to measure the code coverage. Help the team on blocking issues in writing automated tests. Provide sample code snippets to demonstrate use of various C++ constructs and win32 APIs.

## Mobile Test Automation

*Client: Vodafone*

As a technical architect my responsibility was to set up complete test environment for automated testing of Vodafone's android native apps, including CI setup at Vodafone, Dusseldorf. It was my responsibility to ensure that BDD principles are followed correctly, appropriate frameworks and technologies are used for the test automation, ensure that the software solution used for test automation is scalable to support testing of hundreds of handset devices participating in test cases for features such as group chats, broadcast messages, etc. Also ensure that the software solution works smoothly over long periods of time such as several days. Managed a team of 6 test automation engineers from Vodafone, Dusseldorf. Helped Vodafone team in integrating backend provisioning services and Android native apps' features together into automated integration tests. I later on also visited the Vodafone software development vendor in Portugal (WIT Software) to replicate the test automation environment. Together with the team, we developed complex test cases using calabash-android. Used Jenkins as the CI environment. Resolved many problems related to running the automated tests repeatedly for long periods of time such as 2 days. For every test case execution, a full calabash-android report including screenshots and device logs were captured on CI server.

## Test Automation of Java Swing & SWT Applications

*Client: Siemens*

For desktop Java applications that mix Swing & SWT GUI controls, it is really hard to do the test automation. Siemens has a legacy application with millions of lines of code, which mixes SWT & Swing controls. It was my job to research possible solutions for automating test cases that contained interacting with SWT as well as Swing controls. Siemens had already selected Jubula as a test automation tool. Jubula too did not support automating mix of Swing and SWT controls. After a lot of research, I recommended a solution wherein the SWT part of the AUT was automated using Jubula Client API and the Swing part of the AUT was automated using AssertJSwing framework. These two were integrated under Cucumber-JVM to support BDD style test cases. I developed a POC to prove the correctness and completeness of the solution.

## Simulator for Game Testing

*Client: SQS GmbH*

Designed and developed a simulator for load testing and concurrency testing of an online gaming application. This simulator was developed in C++ on windows platform with extensive use of multithreading and socket programming.

## Education

- Bachelor of Computer Science (BCS) from Pune University,
- Post Graduate Diploma in Advanced Computing, C-DAC Pune

## Other Information

- Skype - heramb.deware
- LinkedIn - <http://www.Linkedin.com/in/heramb-deware/>
- Attitude, Company Culture <https://app.plum.io/profile/heramb>
- Languages - English, Hindi, Marathi
- USA Business visa valid until September 2027
- Can obtain long term Schengen Business Visa within 5 working days

## Hobbies

- Big fan of Indian Classical Music. Likes music from all parts of the world.
- Hiking, camping, long drives, travel
- Coffee brewing