

DELL Intern Program 2012 Job Descriptions

Internship Role EQL Base Software Engineering – System Test Intern

We are seeking a System Test Intern to contribute to the testing of Dell's award winning storage solutions. In this role you will work the test team to develop and execute test cases to verify that the system functionality is operating correctly. A successful candidate must have a passion for technology, the ability to work in a team and the desire to learn.

RESPONSIBILITIES:

- Develop and execute test cases for firmware running on iSCSI storage arrays
- Analyze failures found in test case execution and report findings to development
- Develop test scripts for inclusion in an automated test harness
- Setup and configure iSCSI storage array environments

REQUIREMENTS:

- Minimally pursuing a BS in computer science or computer engineering
- Course work and projects in following areas: Microprocessors, Operating Systems, Embedded Software, Networking, device drivers
- Ability to program in C, C++ and a scripting language (Perl or Python) strongly desired, minimally have completed programming courses or projects
- General operating system knowledge (Windows is required, Linux is strongly desired)
- Independent, creative, focused, organized
- Ability to work in a team environment
- Excellent verbal and written communication skills
- Good problem solving and debugging skills

Internship Role

EQL Base Software Engineering – iSCSI& Networking

A summer internship with the iSCSI& networking development organization offers an opportunity to work directly with product development engineers on designing, developing and debugging distributed subsystems. Duties will be focused on a defined effort with a scope that can be completed within the summer timeframe. The work is customized for each intern based on the student's areas of interest, skills and Dell needs, with a goal of achieving a productive learning experience that also returns a lasting value to Dell.

Knowledge, Skills & Abilities:

- Strong analytical, problem solving and debugging skills
- Detail-oriented with attention to product quality
- C++ and C programming language skills preferred
- Knowledge of distributed system programming preferred
- Strong understanding of hardware and software interactions
- Good interpersonal and written/oral communication skills
- Ability to operate as an individual contributor and within a team environment

Required Competencies:

- Functional/Technical Skills – Has a good understanding of the knowledge/skill area and is able to apply it with reasonable effectiveness in the position. Functions fairly independently in this knowledge/skill area, but periodically goes to others for guidance.
- Problem Solving – Efficiently and creatively solves problems that affect people within his/her group or other related groups. Looks beyond obvious solutions and experiments with different approaches to solving problems. Develops solutions for problems beyond his/her scope and escalates for confirmation of this solution or other options before acting.
- Action Orientation – Reacts with appropriate urgency to situations and events that require response or turnaround. Has a bias for action, recognizing the pitfalls of over-planning in a fast-changing, unpredictable business. Has a good sense of timing for action, understanding that too late may mean never and too early may waste resources.

- Drive for Results – defines all assignments and work problems in terms of results to be achieved. Works constantly to find the most effective way to achieve intended results. Works efficiently and diligently on the task at hand, putting in whatever time and effort is needed to do an excellent job. Quickly recognizes when progress toward results is slowing or stalling and takes immediate action to get back on track. Accepts difficult goals or assignments and gets right to work. Perseveres in drive for results even when faced with difficulties and setbacks.
- Creativity – Frequently generates new ideas and approaches to the way his/her or others' work is done. Regularly contributes high quality thinking to the development of ideas. Challenges standard approaches and ideas to see if there is a better, more effective way.
- Dealing with Ambiguity – Effectively handles ambiguous dynamic tasks and assignments. Demonstrates ability to change direction in response to changing work situations. Doesn't need things to be black & white. Is able to make a decision and take action when there is not enough information to predict the consequences with certainty.
- Learning on the Fly – Experiments regularly and will try anything to find solutions. Analyzes both successes and failures for clues to improvement. Embraces new situations and problems as learning opportunities. Is flexible and adaptable to frequent change.

Internship Role
EQL Base Software Engineering – Platform Software

RESPONSIBILITIES:

- Develop, Maintain, and test software for embedded hardware systems ranging from processor bootstrap, diagnostics, operating system internals, device drivers, and system services.
- Potentially work with hardware engineers to design and debug embedded system products
- Maintain existing portfolio of system products and software and seek to improve product quality and serviceability
- Communicate status, document designs, and work with entire organization to deliver high quality products on schedule

REQUIREMENTS:

- Independent, hardworking, creative, focused, organized, strong team player
- Excellent verbal and written communication skills
- Must be willing to question the status quo and look to improve current practices
- Must be customer and product focused, willing to adapt to changing needs, and produce tangible results
- Course work and projects in following areas: Microprocessors, Operating Systems, Embedded Software, Networking, device drivers
- Minimally working towards a BS in computer or electrical engineering or computer science
- Ability to program in C, C++ and assembly language strongly desired, minimally have completed programming courses or projects

Internship Role

EQL Base Software Engineering - Performance

A summer internship with the Performance engineering organization offers an opportunity to work directly with product development engineers on designing, developing and debugging distributed subsystems. Duties will be focused on a defined effort with a scope that can be completed within the summer timeframe. The work can span many engineering subjects, including data analysis and manipulation, scripting, web development and software development. The work is customized for each intern based on the student's areas of interest, skills and Dell needs, with a goal of achieving a productive learning experience that also returns a lasting value to Dell.

Knowledge, Skills & Abilities:

- Strong analytical, problem solving and debugging skills
- Detail-oriented with attention to product quality
- Perl and C programming language skills preferred
- Statistical programming language skills (such as "R") a plus
- Knowledge of the Windows and Linux OS platforms preferred
- Strong understanding of hardware and software interactions
- Good interpersonal and written/oral communication skills
- Ability to operate as an individual contributor and within a team environment

Required Competencies:

- Functional/Technical Skills – Has a good understanding of the knowledge/skill area and is able to apply it with reasonable effectiveness in the position. Functions fairly independently in this knowledge/skill area, but periodically goes to others for guidance.
- Problem Solving – Efficiently and creatively solves problems that affect people within his/her group or other related groups. Looks beyond obvious solutions and experiments with different approaches to solving problems. Develops solutions for problems beyond his/her scope and escalates for confirmation of this solution or other options before acting.
- Action Orientation – Reacts with appropriate urgency to situations and events that require response or turnaround. Has a bias for action, recognizing the pitfalls of over-planning in a fast-changing, unpredictable business.
- Has a good sense of timing for action, understanding that too late may mean never and too early may waste resources.

- Drive for Results – defines all assignments and work problems in terms of results to be achieved. Works constantly to find the most effective way to achieve intended results. Works efficiently and diligently on the task at hand, putting in whatever time and effort is needed to do an excellent job. Quickly recognizes when progress toward results is slowing or stalling and takes immediate action to get back on track. Accepts difficult goals or assignments and gets right to work. Perseveres in drive for results even when faced with difficulties and setbacks.
- Creativity – Frequently generates new ideas and approaches to the way his/her or others' work is done. Regularly contributes high quality thinking to the development of ideas. Challenges standard approaches and ideas to see if there is a better, more effective way.
- Dealing with Ambiguity – Effectively handles ambiguous dynamic tasks and assignments. Demonstrates ability to change direction in response to changing work situations. Doesn't need things to be black & white. Is able to make a decision and take action when there is not enough information to predict the consequences with certainty.
- Learning on the Fly – Experiments regularly and will try anything to find solutions. Analyzes both successes and failures for clues to improvement. Embraces new situations and problems as learning opportunities. Is flexible and adaptable to frequent change.

Internship Role Mobile Software Development – GUI Team

We are seeking a Mobile Software Development Intern to contribute to the development of mobile apps for our award winning storage management solution. In this role you will design and develop storage management apps for both mobile phones and tablet devices. A successful candidate must have a passion for technology, an open mind, and the desire to learn new things

RESPONSIBILITIES:

- Develop, enhance, and test mobile products for Android OS and other mobile platforms
- Work with senior staff to plan and size individual projects
- Communicate status and document designs
- Interact effectively with members of the various technical teams within our engineering organization

REQUIREMENTS:

- Pursuing a Bachelor's or Masters degree in Computer Science or Computer Engineering
- Hardworking, creative, independent, organized, strong team player
- Customer and product focused, willing to adapt to changing needs, and produce tangible results
- Excellent verbal and written communication skills
- Understanding of object oriented programming & design
- Some knowledge of software design patterns and client/server architectures
- Good understanding of usability principles
- Experience with Java and client side scripting, like JavaScript
- Knowledge of web technologies, such as HTML, HTML5, JavaScript, CSS, XML, JSON, REST and SOAP
- Knowledge of Android programming will be a plus

Internship Role VMware Integration Tools

Did you know that Dell does software? Come join a cutting edge team working on innovative software projects. The Dell Product Group has an opening in the Host Integration (Windows/Linux/VMware), Firmware, Systems Management and partner integration teams. We utilize the Agile software development model to get new features into our customers' hands quickly, letting you see the fruits of your labor being utilized quickly. Come join the growing group of software professionals at Dell.

The VMware Integration Tools team is a fun and diverse team of software engineers looking to push the envelope when it comes to delivering innovative products to our customers. You will get to play with the latest virtualization technologies, learn from some of the best engineers, and help us build exciting new software.

We are looking for a candidate with a passion for technology, an open mind, and a desire to learn new things. In particular, we are looking for the following qualifications and skills:

- Pursuing a Bachelors or Masters degree in Computer Science or Computer Engineering (Junior or above)
- Solid Java programming skills (C++ and other languages are a plus)
- Experience with object oriented programming and design
- Some knowledge of software design patterns and client/server architectures
- General OS knowledge (Windows is a must, Linux preferred)
- Good problem solving and debugging skills
- Ability to write a test plan, create and execute test cases
- Understanding of the Software Development Cycle
- Basic knowledge of Microsoft Office tools
- Good written and oral communication skills
- Good teamwork skills – the ability to work in a team environment
- Some presentation skills (interns will be required to present their project at the end of the internship)

Internship Role System Management Embedded Engineering

We are looking for a Software Test and Development Intern to work on the embedded management of Dell/EqualLogic storage products. We are a team of smart visionaries who define the UI experience and develop embedded code to support the management of the award winning Dell/EqualLogic intelligent data management devices.

Primary Responsibilities

- Design, develop and execute automated and manual system and unit level tests.
- Create test scripts from design docs, requirements docs and documented test cases/procedures.
- Work with software developers and unit test engineers to troubleshoot and triage issues and defects.
- Assist in developing detailed test strategies, plans and procedures in the form of test matrix
- Communicate status effectively and ensure high quality deliverables.

Requirements

- Independent, hardworking, creative, focused, organized, strong team player
- Excellent verbal and written communication skills
- Must be customer and product focused, willing to adapt to changing needs, and produce tangible results
- Course work and projects in following areas: Operating Systems, Embedded Software, Storage, Networking, device drivers
- Ability to develop test automation and scripts using Python and/or Perl.
- Good analytical skills with attention to detail.
- Good understanding of C and / or C++ is a plus.

Internship Role Sustaining Engineering

We are seeking an experienced Quality Assurance Engineer for our Maintenance Release Team. The successful candidate will be a bright, resourceful test engineer possessing the ability to work in all aspects of system-wide testing. The candidate must be a team player who is able to execute test plans and test cases mimicking real world customer environments. Candidate must be a highly motivated self-starter who can work well independently and who can interface well with developers, customer support and documentation groups.

Responsibilities:

- Execute manual testing and automated testing utilizing industry standard tools
- Track and communicate testing status
- Report, track and verify defects found in testing

Skills:

- Independent, hard-working, creative, focused, and organized
- Comfortable in a scripting language
- Good verbal and written communications skills
- Some knowledge in networking and storage across multiple operating systems, including Windows and various UNIX/Linux-based platforms
- Some knowledge in Microsoft applications (clusters, hyper-v)

Internship Role Dell EqualLogic Product Documentation Group

We are looking for a technical writer for the product documentation group located in our Nashua office. In this position, you will be responsible for developing and producing technical documentation and information products for Dell's storage products. Our Tech Writers have strong writing skills, enjoy working on a team in a fast-paced environment and have the technical expertise to understand and explain complex technical concepts to audiences of all technical levels.

Candidates must be able to work closely with engineers and other writers. Must be an excellent writer dedicated to delivering high quality documentation.

Responsibilities (may include):

- Learn and apply basic technical publications standards. Make basic decisions affecting document format.
- Support senior writers in composing and editing text and conducting interviews with product experts. Show flexibility and good judgment in working with other project team members.
- Revise existing publications to incorporate new product releases or features.
- Update sections of information components, documents, or help systems. Effectively explain product features, applications, and instructions to appropriate audiences.
- Assist the Technical Illustrator in producing artwork.
- Assist the Tools Specialist with ongoing projects.
- Manage own work according to a plan developed by manager. Complete assignments with guidance from manager and other writers.

Required Skills

- Strong writing and communication skills.
- Basic understanding of the writing process, information development, and publishing tools.
- Experience writing conceptual, procedural, and reference materials.
- Able to work in a fast-paced, complex, technical environment.
- Pursuing a degree in English, Technical Communication, Journalism or related field.

Internship Role Host Integration QA Team

RESPONSIBILITIES:

- Develop and execute testcases on the various Host Integration Tools software releases (Windows, Linux, VMware)
- Install and configure various testing environments in preparation for performing testing.
- Track and communicate testing status
- Report, track and verify defects found in testing
- Automate tests and or configurations steps where possible

QUALIFICATIONS:

- Pursuing a Bachelor's or Master's degree in Computer Science or Computer Engineering
- Independent, hardworking, creative, focused, and organized
- Good written and oral communication skills
- Knowledge of ISCSI SAN Storage

Windows:

- Ability to Install and setup various Windows Server versions
- Experience with Microsoft PowerShell
- Familiarity with any of the following applications:
 - SQL
 - Exchange
 - Hyper-V
 - SharePoint
- Understand/Experience with host side Clustering a plus

Linux:

- Ability to Install and setup various Linux Operating System versions
- Familiarity with Linux Clustering, fencing, Persistent Reservations
- Knowledge of Multi-Pathing environments (MPIO)

VMware:

- Ability to Install and setup various VMware ESX environments
- Familiarity with any of the following VMware technologies:
 - vMotion
 - VMware View
 - sDRS
 - SRM
 - VMware PowerShell CLI

Internship Role Dell/EqualLogic Automated Test Team

Dell's EqualLogic storage solutions deliver the benefits of consolidated networked storage in a self-managing, iSCSI storage area network that is affordable and easy to use, regardless of scale. By eliminating complex tasks and enabling fast and flexible storage provisioning, these solutions dramatically reduce the costs of storage acquisition and ongoing operations.

Patented page-based volume management enables automatic movement of data while it is in use. This technology provides the foundation for online expansion, automatic configuration and load balancing, performance optimization, and advanced software functionalities — all with continuous access to data. That means no downtime for increasing capacity, moving data between storage tiers, or load balancing storage, and most management tasks are handled by the array, not the administrator. As a result, the EqualLogic PS Series of arrays makes enterprise-class shared-block storage practical for all servers and applications. With its unique peer storage architecture, the PS Series delivers high performance and availability in a flexible environment with low cost of ownership. Whether you are seeking to consolidate storage, migrate from DAS or NAS, streamline data protection, or expand capacity, the PS Series of proven, self-managing storage arrays will meet the demanding requirements of your business-critical environment.

The [EqualLogic](#) Automated Test team is looking for a bright, motivated intern. Responsibilities will include:

- Schema design and implementation of database to track automated code coverage data
- Data access layer design and implementation
- Algorithms for processing large volumes of block/arc data
- Algorithms to provide advanced query capabilities
- Integration with existing storage array automation code

Desired skills:

- Actively pursuing a degree in Computer Science
- Familiarity with [code coverage](#) concepts
- Proficient in any of the following, ideally all {C/C++, C#, Perl, Powershell}
- Familiarity with *both* UNIX and Windows
- Completed a class on relational database design
- Interest in algorithms that operate on connected graphs
- Excellent written, verbal, and interpersonal skills
- Ability to thrive in a team setting

Internship Role

EQL Base Software Engineering – Virtualization Intern

We are seeking an Intern to contribute to the development and testing of Dell's award winning storage solutions. In this role you will work the virtualization engineering team to develop and execute test cases to verify that the system functionality is operating correctly. Distinguished candidates may also be eligible to contribute to the architecture and development of an object oriented regression test framework. A successful candidate must have a passion for technology, the ability to work in a team and the desire to learn.

RESPONSIBILITIES:

- Develop and execute test cases for firmware running on iSCSI storage arrays
- Analyze failures found in test case execution and report findings to development
- Develop test scripts for inclusion in an automated test harness
- Setup and configure iSCSI storage array environments

REQUIREMENTS:

- Minimally pursuing a BS in computer science or computer engineering
- Course work and projects in following areas: Microprocessors, Operating Systems, Embedded Software, Networking, device drivers
- Ability to program in C, C++ and the Python scripting language strongly desired, minimally have completed programming courses or projects
- General operating system knowledge (Windows is required, Linux is strongly desired)
- Independent, creative, focused, organized
- Ability to work in a team environment
- Excellent verbal and written communication skills
- Good problem solving and debugging skills