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| **Nirty Jaganathan** | | 168 Burns Ave, Atherton, CA - 94027  [nirty.4u@gmail.com](mailto:nirty.4u@gmail.com?subject=Regarding%20your%20Job%20application) | 669-600-9127  <https://www.linkedin.com/in/nirty> | |
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| **EXPERIENCE** | | | |
| **Senior Member of Technical Staff** | **VMware Inc., Palo Alto, CA** | | *August 2016 – Current* |
| **Java | Spring MVC | Rabbit MQ Messaging system | Google Protocol buffers | Corfu DB | Junit | Mockito | Maven** | | | |
| *NSX - Applications monitoring server for data center*   * Architected the data models to monitor the process communications between applications in data center. * Implemented the communication protocol between the NSX Manager and the hypervisor agents which will handle temporary network delay, unreachable or unresponsive hypervisors with the ability to resume monitoring when the hypervisor recovers. * Defined & implemented the RESTful query and search interface to present the information about applications running on a VM and network events between the applications hosted across VMs. * Programmed the deployment of 100 ESX hypervisors and 1000 Windows VMs in a private data center and tested the scalability & performance of the application by measuring its latency and CPU statistics of the NSX Manager.   *Mock distributed host client*   * Developed a mock host client in Java which is currently used by multiple dev teams to test the scale performance of their applications. * Integrated mock client with the Spring Integration test framework which can be configured to simulate response messages and concurrent high frequency requests from the hosts via Rabbit MQ messaging system based on the testing needs.   *Code quality improvement efforts*   * Increased the code coverage from 55% to 82% by introducing various testing methodologies for distributed environment & responsible for wide spread adoption in our organization * Reduced product’s compile time by 30 seconds, loading time by 60 seconds and achieved a total build time reduction of 5 mins by removing the deprecated, un-used and dead code in the codebase (~1500 source files) | | | |
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| **Senior Software Engineer** | **Intel Corporation, San Jose, CA** | | *Dec, 2012 – August 2016* |
| **Java | Struts framework | XML | Verilog | VHDL | Perl | Python** | | | |
| *Qsys Pro – A new scalable Java based system design & HDL Integration tool for FPGA*   * Transformed an abstract idea into a prototype and materialized into a new version of the product; helping shape the future vision of the team. * Defined user flows and provided guidance on the functionality and UI experience of the new product to a team of 6 software developers. * Designed & implemented core data model and built adapters for legacy system data model. * Re-designed tree based system traversal and information propagation mechanisms to improve scalability.   *Qsys – Legacy Java based system design tool*   * Built a business-critical patch to enable Altera's first System on chip FPGA device to be used by embedded designers, after the original feature was missed in the main release. Devised a mechanism for ARM Processor HDL logic block to expose internal hierarchical representation and interfaces. * Developed a QOR Suite to benchmark Qsys tool by developing a framework that can create systems dynamically based on specified number of nodes and depth. Compared performance improvements and revealed scalability shortcomings which provided motivation for the new tool.   *Responsibilities & Honors*   * Nominated among top 3 emerging leaders in software department for 2013-2015 year cycle. * Lead Liaison of my team to advice HDL logic block authors on requirement analysis, solutions design and hardware Tcl API usage. * Mentored new hires on codebase, Test-driven development leveraging Mockito, EclEmma & Junit and helped them set project milestones. | | | |
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| **Web Developer** | **PrimePay Inc., West Chester, PA** | | *Jul, 2012 - Oct, 2012* |
| **C# |Asp.Net MVC 3 | JQuery | DataTables | SQL Server** | | | |
| *www.readysetwork.com*   * Expanded target market from medium size businesses to small businesses by building employees oriented scheduling feature retrofitted to seamlessly work with original shift based scheduling database model. * Engineered the "Calendar Sync" feature to improve the user experience by enabling employees to get notified of their work schedules from their personal handheld devices.   *Responsibilities & Honors*   * First software engineer hire, responsible to bring the development in-house from a third-party development team.   Exclusively responsible for prototyping, developing, testing and deploying to production without any technical guidance. | | | |
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| **Graduate Student** | **University of Pennsylvania, Philadelphia, PA** | | April 2012 |
| **Java | Pastry | Berkeley DB | AJAX | Amazon EC2 | Amazon Elastic MapReduce** | | | |
| *Distributed Web Search Engine*   * Collaborated and built a Java based distributed, multi-threaded web crawler and indexer deployed on 10 Amazon EC2 Instances achieving combined speed of ~800 pages/ min. * Calculated PageRank utilizing MapReduce for ~350,000 unique web pages crawled and implemented a search engine based on a RESTful API.   Formulated a ranking algorithm integrating internal and external (ebay.com & duckduckgo.com) search results based on TF/IDF values, position of searched key words and PageRank value. | | | |
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| **Web Developer, Intern** | **Wooden Ox Inc., Los Angeles, CA** | | *Jun, 2011 - Aug, 2011* |
| **Ruby on Rails 3.0 | PostgreSQL | JQuery | Isotope | AJAX | Solr | HTML | CSS** | | | |
| *www.inkba.com*   * Empowered businesses and advertising agencies by building a search feature to find physical outdoor advertisement spaces based on their desired location, date, categories and price.   Improved the performance of the search by integrating with Solr, a full text search engine. Enhanced the feature with client-side filtering and visualization using the JavaScript Library – Isotope. | | | |
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| **EDUCATION** | | | |
| **M. S. E. (TCOM)** | **University of Pennsylvania, Philadelphia, PA** | | *May, 2012* |
| * Master of Science in Engineering, Telecommunications & Networking. GPA: 3.45 * Coursework: Internet & Web Systems, Database & Information Systems, Web Programming, Networked Systems, Software Engineering | | | |