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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* | |
| *NSX – Applications monitoring in data center*   * Architected the application and data models in management plane to handle concurrent monitoring of 20 hosts with 20 VMs each which could handle temporary network delay, unreachable or unresponsive hosts with the ability to resume the monitoring when the hosts recover. * Defined & implemented the RESTful query and search interface to visually represent the information about different applications installed, VM’s in the security group, network activity between the processes running on different VM’s of the hosts. * Deployed the application over a scale setup of 100 Hosts and 1000 VM’s in total and measured the latency of the application and CPU statistics of the appliance.   *Mock distributed host client*   * Developed a Java based mock host client which is currently used by multiple 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   *Responsibilities*   * Introduced various testing methodologies for distributed environment & responsible for wide spread adoption in our organization. * Reduced compile and Spring loading time of appliance by removing the deprecated and dead code in the codebase (~1500 source files)   *Technologies*  Java, Spring MVC, Rabbit MQ Messaging system, Google Protocol buffers, Corfu DB, JUnit, Mockito, Maven | | | | |
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| **Senior Software Engineer** | **Intel Corporation, San Jose, CA** | | | *Dec, 2012 – August 2016* |
| *Qsys Pro – A new scalable Java based system design & HDL Integration tool for FPGA*   * Co-authored software requirement specification and defined user flows for Qsys Pro – a new scalable tool based on the legacy product. * Turned an abstract idea into a prototype and materialized a new version of the product; helping shape the future vision of the team. * 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. * Provided guidance on the functionality and UI experience of the new product to a team of 6 software developers.   *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.   *Technologies*  Java, Struts framework, XML, Verilog, VHDL, Perl, Python | | | | |
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| **Web Developer** | **PrimePay Inc., West Chester, PA** | | | *Jul, 2012 - Oct, 2012* |
| * Expanded target market of readysetwork.com from medium size businesses to small businesses by building employees oriented scheduling feature retrofitted to seamlessly work with original shift based scheduling database model. * Launched "ICalendar" feature that employees can subscribe for work schedules via Google Calendar, Outlook, etc.   *Responsibilities & Honors*   * First software engineer hire, responsible to bring the development in-house from a third-party development team. * Responsible for prototyping, developing, testing and deploying to production without any technical guidance.   *Technologies*  C#, Asp.Net MVC 3, JQuery, DataTables, SQL Server | | | | |
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| **Web Developer, Intern** | **Wooden Ox Inc., Los Angeles, CA** | | | *Jun, 2011 - Aug, 2011* |
| * Created location based advertisement search functionality for inkba.com. Search functionality was powered by full text search engine, Solr and enhanced by client-side filtering of results on date, categories and price.   *Technologies*  Ruby on Rails 3.0, PostgreSQL, JQuery, Isotope, AJAX, Solr, HTML, CSS | | | | |
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| **EDUCATION** | | | | |
| **M. S. E. (TCOM)** | **University of Pennsylvania, Philadelphia, PA** | | | *Aug, 2010 - 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 | | | | |
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| **ACADEMIC PROJECTS** | | | | |
| **Distributed web search engine** | | | | *Apr, 2012* |
| * 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 ranking algorithm integrating external search results from ebay.com & duckduckgo.com and internal search results based on TF/IDF values & position of searched key words and PageRank value.   *Technologies*  Java, Pastry, Berkeley DB, AJAX, Amazon EC2, Amazon Elastic MapReduce | | | | |