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SHYAMSUNDER RAMAKRISHNAN

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EDUCATION

Master of Science, Computer Science	**Expected May 2018**
North Carolina State University, Raleigh, NC	GPA 3.7/4.0
Bachelor of Engineering, Information Technology	**May 2014**
University of Mumbai, India	GPA 3.8/4.0

Relevant Coursework: Data Structures, Algorithms, Operating Systems, Computer Networks, Software Engineering, Cloud Computing, Automated Learning & Data Analysis, Algorithms for Data Guided Business Intelligence, Software Security

TECHNICAL SKILLS

Languages: Java, Python, C#, R
Web Technologies: Spring MVC, Node.js, AngularJS, ASP.NET MVC, Ruby on Rails, HTML5, CSS3, jQuery, Ajax, Bootstrap
Database Technologies: MS SQL, MySQL, Oracle 11g, Apache Cassandra
Tools: Ansible, Docker, Jenkins, Maven, Selenium, ElasticSearch, Logstash, Kibana, Apache Spark, Tensorflow, Amazon AWS

WORK EXPERIENCE

Software Engineering Intern   **Cisco Systems, Research Triangle Park**   **May 2017 – Aug 2017**
- Worked with the Cloud Collaboration team to Implement Cisco Spark call failure analysis using machine learning
- Built a GPU server and setup the model training and prediction workflows to perform real time call failure classification
- Worked on troubleshooting issues, bug fixes, automation scripts and REST API performance tests for Cisco Spark Call
- Technologies used include Linux Bash, Python, Docker, ElasticSearch, Kibana, Apache Spark, Maven, Cassandra

Software Developer   **Tata Consultancy Services, Mumbai, India**   **Sep 2014 – Jul 2016**
ABN Amro Bank, UK – Global Treasury
- Implemented a Forex and Money Market deal capturing system for Treasury traders using ASP.NET MVC framework
- Enhanced Treasury system for additional Savings products, remodeled MVC code and optimized transaction workflow
- Developed an automation tool in C# for upgrading CRM application which reduced turnaround time by 540 man-hours
- Customized a workflow system in Spring to trigger scheduled EOD notifications on bank's balance and currency positions
- Served as a lead developer, held design discussions with clients and ensured timely software solution deliverables

Programming Intern   **NCSU Office of Information Technology**   **Jan 2017 – May 2017**
- Worked on implementing OIM as NC State's central infrastructure that handles user Identity and Access Management
- Involved in IDM data migration to Oracle 11g database and performed application testing using Jenkins

SELECT PROJECTS

Slack DevOps Chat Bot - VMOps (*NodeJS, Vagrant, Ansible, Amazon AWS, CloudWatch*)
- Developed a conversational slack bot to configure and manage remote virtual machines on AWS servers using Ansible
- Implemented features for users to spin up VMs, monitor resource utilization, merge VMs and shrink VM resources

Performance Analysis of Containers and VMs for Cloud Applications (*Docker, VirtualBox, Grafana, OpenNMS*)
- Analyzed performance of Docker containers vs Type 2 hypervisor based VMs for compute and data centric cloud apps
- Performed benchmark tests for CPU, memory, disk I/O metrics; rendered real time comparison using OpenNMS, Grafana

Open Source Contribution - Security Analysis and Risk Mitigation of OpenMRS
- Performed threat modelling, static and dynamic analysis of OpenMRS app using HP Fortify, OWASP ZAP and Burp Suite
- Developed code fixes of risk mitigations, contributed to public repository and presented a complete risk analysis report

Reliable File Sharing System over UDP (*Python, C++*)
- Developed a file sharing system using Go-back-N with automatic repeat request and Selective Repeat ARQ over UDP
- Implemented retransmission scheme, timeout and checksum to ensure reliable and efficient UDP data transfer

Twitter Sentiment Analysis (*Python, Apache Spark, Kafka, D3.js*)
- Processed live Twitter feeds on specific events using Spark streaming APIs, queued and buffered streams using Kafka
- Analyzed tweets on the context of positive or negative reactions using classifiers, rendered graphical analysis using D3.js

Open Source Contribution – Feature Addition to Expertiza LMS (*Ruby on Rails, Google Drive API, Heroku*)
- Added a collaborative assignment review feature to Expertiza Learning Management System using Google Drive API
- Enabled users to collaborate on assignments in goodle docs with appropriate access levels and maintained peer reviews

AWARDS & RECOGNITION

- Achieved a jury award of Third position at LexisNexis Rise to Code 2017 Hackathon
- Certificate of Excellence on client nomination at Tata Consultancy Services for proficient application development