Vivek Tiwari

Radicle Balance
Sr. Software Developer
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OBJECTIVE

Ever curious learner, uncompromising on quality, go-getter with experience in cloud distributed scale systems looking for challenge to make impactful difference by creating great products. I would love to be a part of team which embraces technical challenges in the realms of cloud computing and distributed systems which encompasses different components e.g Kafka, Cassandra, Replication, Optimization etc

TECHHNICAL SKILLS

◇ **Languages**: Ruby on Rails, Python (Django/Webpy), C, Javascript, Node, React, PHP, Bash, Perl.

◇ **Technologies**: UNIX, RESTful web services, AWS, Docker/Container/Kubernetes, Kafka, Rspec, Virtualization, CI/CD

◇ **Database**: MySQL, Sqlite, Postgres, LDAP, Cassandra, Redis

◇ **S/W Tools**: JIRA, tcpdump/wireshark, Web developer tools, Logstash/Grafana/Kibana, ElasticSearch, Collectd

◇ **Version Control**: SVN/Git, Clearcase

◇ **Misc.**: Debugging, Unit Testing, Automation, System Design, Microservices, Distributed System

WORK EXPERIENCE

◇ **Sr Software Developer, RADICLE**, (Nov 2021–Present)

· Working on cool features for hyper growth SaaS platform to help customers come up with a plan to reduce carbon emissions.

· Identifying, describe, break-down, estimate, prioritize outcomes into technical specifications

◇ **Sr Software Developer, MOTOROLA SOLUTIONS**, (September 2016–Nov 2021)

· Delivered customer facing critical features while leading team of 3 in a tight schedule e.g User Authentication, Rate Limiting(Security), Upload Self Signed SSL certificate Licensing features for Access Control Manager(ACM) with RESTful APIs.

· Dockerized development environment for dev team. Convinced stakeholders to adapt to containerized approach instead of virtualization. Gave tech-talks to dev team and brainstormed on challenges.

· Improved post analysis for Rspec Automation Framework. Saved 2 days effort per person. Resulted in increased team effort for automation and post analysis.

· Created Application Performance Monitor tool for ACM using Grafana, Logstash, net-data. Helped diagnose issues before customers escalations and reduced escalations upto 20%

◇ **Software Developer, FORTINET**, (May 2014–August 2016)

· Wrote web application framework for AV signature in house testing. Increased efficiency of AV analysts in post analysis performance of AV signatures and reduced 2 days of effort per person.

· Wrote and Deployed high-available web application (Web Filtering) in AWS using Elastic beanstalk. This enabled the team to get acquainted with AWS and use the service as SaaS.

· Performance improvement of content pattern recognition language database (MySQL) for AV signatures.

· FortisandBox REST based API testing.

· Managed and delivered 80% work flow to get FORTINET's FSA (fortisandbox) NSS certified.

◇ **Software Engineer in Test, PROCERA NETWORKS**, (November 2012–April 2014)

· Designed and developed system automation scripts in Python and Bash for cross platforms systems which helped cover lots of platform testing in a day instead of 3 days.

· Debugged network traffic capture using gulp/tcpdump/wireshark for applications on different devices (iOS, Android, Windows) for testing NAVL's cross platform functionality.

◇ **System Engineering Intern, BROADCOM**, (September 2011–April 2012)

· Designed and maintained automated scripts(Perl/Tcl) for variety of telecommunication algorithms and system for Broadcom's VoIP software.

· Set up and configure the entire EMIP (Network Impairment)platform on RedHat Linux OS and invloved in charaterizing the behavior of end point APIs in different network conditions.

RESEARCH INTERESTS/ PROJECTS

◇ **Hobby Project**

· Built a mobile cell charger designed to be charged while walking using electromechanical concepts .Won certificate of merit for the design concept and prototype.

· Raspberry Pi Home Automation(A minicomputer with BCM2835 chip)

◇ **Academic Project**

· Enhanced throughput by 15% compared to regular IEEE 802.11 DCF protocol, in VANET using Frame Size Adaptation, Relay Nodes Optimization and Contention Window adjustment based on the density of vehicles in the network.

EDUCATION

◇ **University of Victoria**, Victoria, BC, Canada.
MASc, Electrical and Computer Engineering: August 2012.
Master's thesis: *Performance Enhancement in Vehicular Ad Hoc Networks with Admission Control and Contention Window Adjustment.*

◇ **National Institute of Technology**, Durgapur, West Bengal, India.
B.Tech, Electronics and Communication Engineering: Spring 2009.
Bachelors's project: *Survey on various congestion control algorithms in Wireless Sensor Networks.*

AWARDS/ PUBLICATIONS

◇ IEEE Journal for Selected Areas in Communication, LACAS: Learning automata based congestion avoidance method in wireless sensor networks for healthcare application, IEEE JSAC special issue on Wireless and Pervasive Communications in HealthcareVol 27, No.4, May 2009 .

◇ First best research paper award for research paper titled 'Learning Automata based Congestion Control scheme in Wireless Sensor Networks' at 7th ACS/IEEE AICCSA, Rabat, Morocco, 2009

◇ Indian National Maths Olympiad (INMO) 2003: Cleared Ramanujan Mathematics Olympiad as a state ranker and qualified for INMO.

◇ Industry Defined Problem 2007: Awarded merit prize for Dynamic Cell Charger which uses electromechanical concept to charge a mobile phone battery.