Aprameya Bhat

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Professional Experience

Fanatics, Inc. *San Mateo, CA*

SOFTWARE ENGINEER, PLATFORM ENGINEER III *July.2018 - Present*

- Working with distributed technologies like Zookeeper, Kafka, Elastic-Search, Graylog, Druid to design and develop highly available & scalable real-time system for end-to-end logging of production systems
- Developing a new monitoring and alerting platform in Kubernetes using open-source technologies like Helm, Prometheus and Grafana
- Improving and Maintaining various real-time production services dealing with a large amount of data in the cloud and on-premises data centers
- Developing various services for better handling large amount of data in company platforms

State University of New York at Binghamton *Binghamton, NY*

RESEARCH PROJECT ASSISTANT *May.2017 - August.2017 & December.2017 -June.2018*

- Worked on Operating System Virtualization concepts: virtual CPU scheduling and processes pinning, aiming at improving the performance of the virtual machine
- Worked on live replacement of hypervisor and reducing the hypervisor involvement in virtual machines operations

State University of New York at Binghamton *Binghamton, NY*

GRADUATE TEACHING ASSISTANT *August.2017 - December.2017*

- Worked on research project aiming to improve the performance of virtual machines with increasing number of virtual CPU
- Graduate teaching assistant for CS550 - Operating Systems & CS451/551 -Systems Programming
- Conducted classes and exams, clearing students doubt, correcting tests and assignments

Evry India Pvt Ltd *Bangalore, India*

SOFTWARE ENGINEER ASSOCIATE *July.2015 - July.2016*

- Developed backend in MVC model using C# and database connectivity using ADO.NET, building REST API's for communication and writing various business logic
- Developed GUI in MVC model using JavaScript & HTML

Education

State University of New York at Binghamton (Binghamton University) *Binghamton, NY*

MASTER OF SCIENCE IN COMPUTER SCIENCE *August.2016 - May.2018*

Visvesvaraya Technological University *Mangalore, India*

BACHELOR OF ENGINEERING IN COMPUTER SCIENCE *August.2011 - May.2015*

Projects

Hypervisor Optimization *Binghamton, NY*

RESEARCH PROJECT WITH PROF. KARTIK GOPALAN & INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE, TAIWAN *March.2018 - June.2018*

- Optimizing the Linux kernel to reduce the hypervisor involvement in virtual machines operations
- Working on reducing the hypervisor overhead in network transaction through VFIO and PCI-passthrough

Live Replacement of Hypervisor *Binghamton, NY*

RESEARCH PROJECT WITH PROF. KARTIK GOPALAN, FUNDED BY NATIONAL SCIENCE FOUNDATION *December.2017 - June.2018*

- Designing and developing a system with the goal to replace the running hypervisor with the new one on the go
- Replacing the running hypervisor with the fresh copy while eliminating the need to stop running virtual machine

Performance impact of increasing the virtual CPU count in virtual machines *Binghamton, NY*

RESEARCH PROJECT WITH PROF. KARTIK GOPALAN *May.2017 - June.2018*

- Developing with a goal to keep the performance of the virtual machine constant with increasing number of virtual cpus
- Aiming to increase the performance of the virtual machine by pinning the processes to the virtual cpus

Socket Programming *Binghamton, NY*

DEVELOPED AT SUNY BINGHAMTON *October.2017 - November.2017*

- Implemented Conference application with client server architecture
- Designed and developed Virtual network routing using Distance Vector routing algorithm
- Multi-threaded HTTP Proxy with Caching

Publication

Overcoming Virtualization Overheads for Large-vCPU Virtual Machines *Milwaukee, WI*

AUTHORS: OZGUR KILIC, SPOORTI DODDAMANI, APRAMEYA BHAT, HARDIK BAGDI, KARTIK GOPALAN *September.2018*

- Published at "2018 IEEE 26th International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems"

Technical Skills

Languages	Python, Java, Go, C, Shell script, HTML, CSS, Javascript, JQuery
Other technologies	Kubernetes, Helm, Docker, Amazon Web Services, Zookeeper, Kafka, ElasticSearch, Druid, Graylog, Kafka-Stream, Prometheus, Grafana