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

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

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"

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