

# Aprameya Bhat

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## Professional Experience

### Fanatics, Inc.

San Mateo, CA

SOFTWARE ENGINEER

July.2018 - Present

- Working with distributed technologies like Zookeeper, Kafka, Elastic-Search to design and develop highly available & scalable real-time system for end-to-end logging of production systems
- Configuring and Maintaining various real-time production services dealing with large amount of data in cloud and on-premises data centers
- Developing tools to monitor end-to-end logging of data and the total cost for the processing

### 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 homeworks, 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

- GPA: 3.81/4.0

### 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

### APEX Simulator

Binghamton, NY

DEVELOPED AT SUNY BINGHAMTON

September.2016 - December.2016

- Designed and developed in-order and out-of- order pipeline simulation system for the intel ISA's

## 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

C, Python, Java, C#, HTML, CSS, Javascript, Shell script, JQuery

### Other technologies

Amazon Web Services, Zookeeper, Kafka, ElasticSearch, Druid, Graylog, Kafka-Stream, ASP.NET, MVC, Jira, T-SQL, SVN, Github, Agile Methodology