VIPUL CHASKAR

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WORK EXPERIENCE:

Software Engineering Intern   **A10 Networks, San Jose, CA**   May 2018 - Aug 2018
- Developed a test recorder tool for Config Management module to automatically record and replay the manual tests.
- It automatically records the config commands sent to CM module, along with backend output from CM. Then it generates test case scripts which replay the commands on CM module and verifies generated backend output.
- Added features in open source testing frameworks PyRestTest and Tavern for internal use through docker containers.
- Stood third place in the Summer 2018 intern project competition.

Associate Software Engineer   **Veritas Technologies LLC**   Jun 2015 - Jun 2017
- Developed REST APIs to interact with Veritas Velocity on-prem appliance and developed appliance modules to manage logs and communicate with management web services in cloud.
- Developed parts of the workflows pertaining to NFS/CIFS share management for backups, storage of relevant metadata and communication with agents on workload servers.
- Wrote shell scripts to configure application and system settings during install/boot time.
- Performed testing with robot framework and end-to-end Jenkins CI/CD pipeline.
- Was part of the Security Response Team and largely drove the efforts for mitigating Input Validation attacks.
- Received Veritas applause awards twice for exceptional perseverance.

EDUCATION:

M.S. Computer Science   **State University of New York, Binghamton**   Aug 2017 - May 2019
GPA: 4.0
- Courses: Distributed Systems, Architecture, OS, Algorithms, Machine Learning, Cloud, Web, Design Patterns
- Teaching Assistant for CS557 Distributed Systems: Spring 2018 & Fall 2018
- Graduated with the award for Academic Excellence.

B.E. Information Technology   **Pune Institute of Computer Technology**, Pune, India   Aug 2011 - May 2015
GPA: 3.64
- Was the Class Representative, Elected member of students association and IEEE.

PROJECTS:

nMASE: A Search Engine for Network Trace (C, Python and Django framework)
- A network search engine which captures, processes, indexes network traffic and enables searching on it with NLP queries and ranked results. Introduced ranking of network traffic and used Boolean Information Retrieval model.
- Best project award from Quick Heal and first in paper presentation during competitions in undergrad.

Microprocessor Pipeline Simulator (Java)
- A simulator of modern multi-datapath, out-of-order execution pipeline which takes a sequence of assembly instructions and shows cycle-by-cycle execution. Supports multiple FUs, ROB, branching and memory instructions.

Distributed, Fault-Tolerant, Highly Available NoSQL Database (Python, Google protobuf)
- An eventually-consistent distributed key-value database like Cassandra. Implements read repair and hinted handoff.

Chandy-Lamport Snapshot Algorithm (Python, Google protobuf)
- A multithreaded application which records consistent global state of an asynchronous distributed banking system. The banking system comprised of branches which continuously performed random transactions with each other.

WatchFS: A Real-time Remotely Monitored Filesystem (Python, FUSE, SQLite, html/js/css)
- A FUSE filesystem layer which records the metadata from filesystem calls and sends it to a server via REST. Server stores it in a DB and provides a web interface to show a dashboard containing charts, tables and notifications.
- Won the Best Security Project award during HackBU hackathon 2018.

Document Search Engine - Web application (Javascript, Node.js, MongoDB, React)
- Allows users to search for text in a set of indexed documents stored in database and shows ranked results.
- Backend developed using ExpressJS framework and REST APIs, frontend using React, Javascript and CSS.

DDoS Detection in SDN Networks using Entropy Variation Models (Mininet, POX, Python, OVS, Scapy)

Chord Distributed Hash Table using Consistent Hashing and 256-bit keys (Python, Apache thrift)

SKILLS:

Languages:	Python, Java, C, Shell scripting, Javascript, SQL, Golang
Technologies:	Robot framework, MongoDB, Django, Flask, Apache tomcat, Gradle, MySQL, Node.js, Docker
Tools:	Git, Perforce, Vim, Jenkins, PyCharm, IntelliJ, VS Code, Linux CLI, RegEx, VMWare vSphere
Other skills:	REST, Cloud, AWS, Virtualization, Containerization, Multithreading, Security, HTTP, TCP/IP