Akshat Sinha

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EDUCATION

IIIT-DELHI
B.Tech in Computer Science
Aug 2014 - May 2018 | Delhi, IN
Cum. GPA: 8.76

ST. COLUMBA'S SCHOOL
Grad. May 2013| New Delhi, India

LINKS

Github:// **akshatgit**
LinkedIn:// **akshat-sinha**
DBLP:// **Akshat-Sinha**

UNDERGRADUATE

Fundamentals of Computer Security
Network Security
Security Engineering
Software Defined Network
Statistical Computing
Embedded Logic Design
Advanced Topics in Mobile Computing
Wearable Computing
Graph Theory
Information Retrieval
Teaching Asst
Systems Management

SKILLS

PROGRAMMING
Over 5000 lines:
Python • C• Java
Over 1000 lines:
Shell

TOOLS
Databases
Redis • MongoDB • MySQL
Pub/Sub
Kafka
Monitoring
Nagios • Prometheus
Icinga • Graphite • Grafana
Web-framework
Flask • Django
Misc
HAproxy • Puppet • Jenkins
Kubernetes • AWS • Git

EXPERIENCE

MEDIA.NET (FORMER DIRECTI) | SRE
June 2018 – Present | Mumbai, IN
- Worked on monitoring and alerting system for the company. The stack consisted of Nagios, Icinga, Prometheus, Graphite and Pagerduty.
- Explored Kubernetes for creating POC of micro services architecture. Used Jenkins to create Blue-Green deployment system with version control of service.
- Handled data pipeline for the team. Used Kafka, Redis and Hadoop for the task.
- Metric/Logging pipeline setup with Graphite and ELK.

IIT MADRAS | Research Intern
Mentor: Dr. B.Ravindaran and Dr. Karthik Raman
May 2017 – Jun 2017 | Chennai, IN
- Clustering protein-protein interaction(PPI) network using deep learning and non deep learning methods

RESEARCH

NETWORK SECURITY LAB | Undergraduate Researcher
Mentor: Dr. Sambuddho Chakravarty
May 2017 – May 2018| IIIT-Delhi, IN
The project consist of detecting various censorship methodologies employed by different ISPs in India, and in the second part we evaded censorship in all ISPs.
Publication: Where The Light Gets In: Analyzing Web Censorship Mechanisms in India. **IMC 2018**

CVML LAB | Undergraduate Researcher
Mentor: Dr. Chetan Sharma and Dr. Anubha Gupta
May 2016 – Aug 2016 | IIIT-Delhi, IN
Segmenting the 3-D volume image into 4 Region of Interest.
Publication: Deep neural networks for segmentation of basal ganglia sub-structures in brain MR images. **ICVGIP 2016**

OTHER PROJECTS

SIMPLE LOAD BALANCER FOR SDN
Mentor: Dr. Vinayak Naik
Project was divided into three parts, first, discover the network topology, then, compute shortest and second shortest path for each pair of nodes and finally divide the traffic between all nodes. Used Ryu controller with mininet.

PACKET LOGGER KERNEL MODULE
Mentor: Dr. Sambuddho Chakravarty
Implemented a simple kernel module to intercept incoming packets and detect TCP reconnaissance packets that can be generated using nmap.

IRC CHAT APP
Mentor: Dr. Sambuddho Chakravarty
Implemented Internet relay chat app in C++ with secure features such as encrypted payload and Kerboros like key distribution center.