

# Sharad Agarwal

<http://sharad1126.github.io>  
sharadagarwal@pm.me | +44-757-099-5584

## EDUCATION

### UNIVERSITY COLLEGE LONDON (UCL)

MSc INFORMATION SECURITY  
Sep 2020 - ongoing | London, UK  
Fully Certified by the National Cyber Security Centre(NCSC).

### VIT UNIVERSITY

BTECH IN COMPUTER SCIENCE AND ENGINEERING  
April 2018| Chennai, India  
Cum. GPA: 8.98/10

## LINKS

Github:// [sharad1126](#)  
LinkedIn:// [sharadagarwal1126](#)  
Twitter:// [@shad1126](#)  
GoogleScholar:// [Sharad-Agarwal](#)  
ResearchGate:// [Sharad\\_Agarwal8](#)

## SKILLS

### PROGRAMMING

- Python • Shell Scripting • HTML • CSS
  - Javascript • PHP • MySQL • MongoDB
  - $\LaTeX$  • C++ • Java
- Familiar:
- C • iOS(swift) • Android • Assembly

### CYBER SECURITY

- Web Application Security(VAPT)
- Nmap • Metasploit • Burp Suite
- Cyber Forensics(mobile, email, banking, e-commerce, reverse engineering, social engineering)
- Indian Cyber Laws

### DEVOPS

- Git • Docker • Container • OpenStack
- Elastic Search • AWS EC2 • Gitlab
- Puppet • JIRA • Grafana • Kibana
- Operating Systems(Mac OS, Linux(RedHat, Kali, Santoku, CentOS, Ubuntu))

## CERTIFICATIONS

### RED HAT CERTIFIED SYSTEM ADMINISTRATOR

## EXPERIENCE

### EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH (CERN)

PROJECT ASSOCIATE, AFFILIATION UNIVERSITY OF WISCONSIN MADISON  
Jul 2018 - Sept 2020 | Geneva, Switzerland

- DevOps in Monte Carlo Production and Data Reprocessing Team at Compact Muon Solenoid (CMS) Experiment.
- Managing thousands of requests producing petabytes of data per month.
- Using Unified, HTCondor, Phedex and other in-house developed softwares over the Worldwide LHC Computing Grid.

### DOCTORS EMERGENCY RESCUE TASK (DERT APP) | FOUNDER AND SYSTEM ADMINISTRATOR

May 2016 – May 2018 | Dehradun, India

- Led a team to develop a cross-platform app to secure doctors from violence which has been accepted and recognized by the Indian Medical Association.
- Used by more than 160 doctors in the city.
- Featured in media - Wittyfeed, Kenfolios, Times Of India, Student Stories, Choutha Sansar, People's Samachar and Freepress.

## RESEARCH

### UNIVERSITY COLLEGE LONDON (UCL) | RESEARCH ASSISTANT

Oct 2020 - ongoing | London, United Kingdom

- Investigating and finding all possible High Yield Investment Programs(HYIPs) in the UK. Analysing the illegal trade being conducted underneath using cryptocurrencies.
- Figuring out the flaws in the UK company registration process that is exploited to conduct such activities online.

### EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH (CERN)

#### CYBER SECURITY INTERN

Jan 2018 – Jun 2018 | Geneva, Switzerland

- Worked with the Computer Security Team to develop a software to identify Internet of Things (IoT) devices and tell the manufacturer, model and firmware of the device.
- Scanned the CERN network using the software, performed Vulnerability Assessment and mitigated them by contacting the device owners through a platform called Fast Incident Response (FIR).
- All code was reviewed, perfected, and pushed to production.

### EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH (CERN)

#### OPENLAB SUMMER STUDENT

Jun 2017 – Aug 2017 | Geneva, Switzerland

- Worked with the Computer Security Team to detect Internet of Things (IoT) devices manually by scanning the network, performed Vulnerability Assessment and mitigated them.
- Tried to map the CERN network on a graph which was not possible due to TBs of logs produced every hour.

## TALKS

### 7TH CONTROL SYSTEM CYBER-SECURITY WORKSHOP (CS)2/HEP, NEW YORK, USA

Detecting IoT Devices and How They put Large Heterogeneous Networks at Security Risk (October 2019).

### MCM/PMP TUTORIAL, CMS WEEK 2019, CERN

Gave a tutorial on Computing Operations: submitting requests, checking status and submitting campaigns.

### PPD WORKSHOP 2019, CERN

Presenting and explaining about the Computing Operations' issues to the Particle Physics Department.

### ROYAL COLLEGE OF ARTS, LONDON

Invited Speaker and mentor at the Grand Challenge 2018 to give a presentation on IoT Security and CMS Computing Operations at CERN.

### IT LIGHTNING TALKS, CERN

Presented the work on IoT Device recognition and security analysis.

### OPENLAB IT LIGHTNING TALK, CERN

Won the first prize for presenting IoT Security insights at CERN.

## SCHOLARSHIPS

### BLACKHAT EUROPE 2019

London, UK

Awarded complimentary Black Hat Europe 2019 Academic Passes

## TRAININGS

### BLACKHAT EUROPE 2019

London, UK

2 days comprehensive training on Malware Analysis and Memory Forensics

### BLACKHAT USA 2020

Las Vegas, USA

4 days in depth training on Malware Analysis, Reverse Engineering and Memory Forensics

## HACKATHONS

### THE PORT HUMANANITARIAN HACKATHON SELECTED

PARTICIPANT

Oct 2019 | CERN, Switzerland

### CERN WEBFEST STOOD 2ND OUT OF 15 TEAMS

Jul 2017 | CERN, Switzerland

## NATIONAL CYBER DEFENSE RESEARCH CENTRE (NCDRC)

### RESEARCH INTERN

Jan 2017 – May 2017 | Chennai, India

- Published a research proposal on 'Internet Censorship in India' and submitted to the Internet Regulatory Authority of India (TRAI).

## CYBER CRIME CELL, HARYANA POLICE | CYBER SECURITY INTERN

Jun 2016 – Jul 2016 | Gurugram, India

- Developed a comprehensive call data record analyzer and also plotted the location of the cellphone on Google Earth by creating the KML file.
- Conducted a research on mobile crime analysis and successfully submitted a report on it.

## PUBLICATIONS

- Rai I., Agarwal S., Malta Rodrigues A., Muzaffar M.S. (Sept 2020) CMS - Automation of Unified building and testing.
- Ahuja A., Agarwal S., Lange D. (July 2020) Growth and Evolution CMS Offline Computing from Run 1 to HL-LHC. ICHEP 2020.
- Layer L., Abercrombie D., Bakhshiansohi H., Si W., Vlimant JR., Hernandez A., Agarwal S., Adelman-McCarthy J. (Nov 2019) Automatic log analysis with NLP for the CMS workflow handling. CHEP 2019 Conference Proceedings.
- Agarwal, S.; Oser, P.; Lueders, S. Detecting IoT Devices and How They Put Large Heterogeneous Networks at Security Risk. Sensors 2019, 19, 4107. (Impact Factor: 3.275)
- Oser P., Agarwal S. (June 2018) Computer Security: Smile you're on camera...
- Agarwal, S., Patel, F., Chaturvedi, P., Asha, S. and VIT, C., 2018. A Novel Approach for Communication among Blind, Deaf and Dumb People. International Journal of Pure and Applied Mathematics, 118(24).
- Agarwal S., Thomas A. (Dec 2017) Internet Censorship in India, NCSSS Summit, 2017, BITS Goa.
- Agarwal, Sharad, Oser, Pascal, Short, Hannah, & Lueders, Stefan. (2017, October 23). Internet of Things (IoT) security. Zenodo. <http://doi.org/10.5281/zenodo.1035034>
- Acknowledged in : Hannah S. (May 2019) Security for Science: How One Thing Leads to Another. Springer. [https://doi.org/10.1007/978-3-030-15705-0\\_7](https://doi.org/10.1007/978-3-030-15705-0_7)

## SUMMER SCHOOLS AND WORKSHOPS

### CERN SCHOOL OF COMPUTING 2019, ROMANIA DIPLOMA IN PHYSICS COMPUTING, SOFTWARE ENGINEERING AND DATA TECHNOLOGIES Sep 2019 | Cluj Napoca, Romania

- Babes Bolyai University
- Earned 5 ECTS with the diploma

### THEMATIC CERN SCHOOL OF COMPUTING 2019, CROATIA

DIPLOMA IN HIGH THROUGHPUT DISTRIBUTED COMPUTING

May 2019 | Split, Croatia

- University of Split

### GRIDKA SCHOOL 2019, KIT

### APPLIED MACHINE LEARNING DAYS 2019, EPFL LAUSANNE

### CERN WHITEHAT TRAINING WORKSHOP, 2018