PRAMOD KUMAR

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<u>*Objective:*</u> To build a career that offers challenge and growth with opportunities to enrich my knowledge and skills while contributing my best to the organization I work for. Highly interested to work on futuristic tech.

Technical Skills:

<u>Protocols</u>: DNS, mDNS, DHCP, Mavlink, BCP
<u>Languages known:</u> C, C++, Python, Java, Apex, full stack
<u>Application development:</u> android app, web development
<u>Database</u>: RDMS, NoSql (mongodb), TDL
<u>CRM platform:</u> Salesforce
<u>Operating Systems:</u> Linux distribution, ROS (RobotOS), Cisco IOS & Polaris, Microsoft Windows

Work experience: 3.5 year

Company	Designation
Cisco system (Aug-2015 - Present)	Software engineer II
Freelancer (May-2015 to Aug 2015)	Application developer
Caterpillar Inc, India (dec-2014 to May-2015)	Software intern
Intecons software lab (May-2014 to July 2014)	Application developer intern

Project profile:

Organization	**: Cisco**	Aug 2015 - Current
Project Title	**: Service-Discovery across Enterprise (wired and wireless)**	

mDNS is a link local protocol (RFC 6762). To support service discovery and management across enterprise, we instrumented a solution with central cache and C&C on Cisco DNA-Controller. Solution enables the controller to discover/respond services and push service policies to hundreds of switches across the enterprise. This solution is deployed at Apple campus, multiple schools and universities in USA.**[Ref Link]**

Responsibilities:
- Design and developed distributed cache for wireless mDNS gateway and several feature/Enhancement like -
  - node failover, handling interface flap, High availability, cache resync, BCP protocol attribute.
  - Automation test scripts and bug fixes

Organization	**: Cisco**	Aug 2015 - Current
Project title	**: Next-Gen DNS(ngDNS)**	

ngDNS is DNS implementation in Cisco switches and routers which supports DNSSEC and ipv4/6 transport.

Responsibilities:
- Complete ownership. Feature/API development such as VRF aware APIs for name resolution, enabling support for NS record in forwarder, fixed security issues and bugs.

Organization   **: Cisco**   Jan 2016 – Mar 2016
Project title   **: DNS Guard & DNS IOT solution**

A typical malware(RAT/rootkit/APT) communicates with C&C centre for instruction/payload and uses hostname to avoid static IP filtering. They even use DNS as a covert channel for data exfiltration or malware updates in an enterprise. DNS guard forces all DNS queries to resolve only from admin/DHCP configured DNS server only. It is done by snooping all DNS packets and matching with DNS policies. On the other hand, DNS IOT solution makes IOT device to communicate only with IPs which are resolved by authorized DNS, which limits malware and backdoor communication.
Role: Design and implementation of POC

Organization: Thingqbator, Innovation lab at Cisco   Aug 2016 - Current
Project title: Autonomous Drone & Bot   **Language: Python, C, C++**

Built several Drones and demonstrated their application in various field.
Applications developed:
- Autonomous flight with mission uploaded on the fly, obstacle detection and path planning, precision landing with image processing, autonomous flying in GPS denied location.
- Bagged runner-up prize in 1st all India drone hackathon in Hyderabad by developing drone for warehouse inspection and inventory management whose C&C was at Microsoft azure. **[Ref Link]**

Organization: Eatbliss   May 2015 - Aug 2015
Project title: E-commerce website   **Language: Full stack: HTML, PHP, CSS, SQL, Redis**

Eatbliss is a Hyderabad based food tech startup. As per the requirement, developed fully-fledged website for accepting online orders. **Role:** Design and implementation.
Features: User login, item display to checkout workflow, payment gateway integration, logging, SMS/email notification integration, admin dashboard.

Organization: Caterpillar Inc   Dec 2014- April 2015
Project title: ECA (Equipment Care Advisor)   **Language: APEX, Visual force, HTML, CSS**

ECA is a machine health monitoring and advisory platform, which takes inputs from hundreds of sensors and generates report, which in-turn is used for advisory. Platform is built on top of salesforce.
Role:
- Developed recommendation framework for machine experts, dealers and customers. Includes UI, background workflow integration, profile permission handling.
- Code coverage was enhanced from 50% to 95% with 1800+ classes.

Organization: IRONWASP   Dec 2014- April 2015
Project title: Java agent
It is a run-time instrumentor for security vulnerability testing engine, which dynamically injects code in any java application binary by using bytecode manipulation. In background it sends info to our security testing server for further analysis.

Organization: Intecons software Lab   May 2014 - July 2014
Project title: Viyaa app
Viyaa is a dating app, shows people in proximity and allow chatting if mutually agreed.
 Role: Implemented chatting feature (similar to 2014 version of WhatsApp) based on XMPP protocol to make message delivery real time. It also includes P2P file transfer.

Education Details:

Education level	College/University	Percentage/CGPA	Year
B.Tech(Computer Science)	VIT University, Vellore	8.56/10	May, 2015

Training/coursework: Machine learning and Deep learning, Hadoop, RHCSA and RHCE, CEH v8, CCNA, mongodb developer(python), mongodb university.
Relevant Coursework: Computer Security, Abstract Algebra, Cloud Computing, Image Processing, Data Mining

Awards and Achievements:
- Won Runner award at India's first UAV hackathon 2018 organized by Cyient, DJI, Microsoft and Government of Telangana.
- Won 2nd place in android hackathon: -"hack for democracy"("**Voice Your Vote**") organized by Venturesity at Microsoft Bangalore.
- Bagged several connected recognition awards for delivering quality at Cisco.
- Offered scholarship from cognizant, India (for under-graduate program)
- Tech and social/survey. Worked on medical health android project(SANA) with MIT media labs, USA