**239 Beacon Avenue AISHWARYA BIDYA BEDABRATA +1-973-342-4979**

**Jersey City, NJ 07306 abb29@njit.edu**

# OBJECTIVE

# Seeking a Full Time opportunity in the field of IT Network Engineering where I can utilize my academic and professional experience.

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**EDUCATION**

**New Jersey Institute of Technology (NJIT), Newark, NJ December 2017**

M.S. **Electrical Engineering (**Specialisation**: Computer Network), GPA: 3.5**

**University Institute of Engineering and Technology (UIET), Panjab University June 2015**

B.E. **Electronics and Communication Engineering**, **GPA: 3.5**

**KEY COURSES**

Computer Network Design and Analysis, Internet & Higher Layer Protocols, Computer Network Laboratory, Computer Communication Network, Network Management and Security, Information System Principle, Linear System, Random Signal Analysis, Wireless Communication, Microwave engineering

**TECHNICAL SKILLS**

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| * **Tools** | VMware, Backtrack, NS3, Ryu, Opendaylight, Mininet, Cisco Packet Tracer, Putty, Wireshark, SolarWinds, Drupal, Microsoft Visual Studio, Eclipse, Axure, MATLAB |
| * **Protocols/Technologies** | TCP/IP, UDP, OpenFlow, Troubleshooting, IPv4, IPv6, IS-IS, RIP, EIGRP, OSPF, BGP, ICMP,DNS/DHCP,HTTP , SSH,SNMP,NMAP, VoIP, IPsec, IPref, LAN, WAN, GSM, LTE |
| * **Programming Languages** | C, C++, Java, Python, SQL |
| * **Web Technologies** | HTML5, CSS, Bootstrap, JavaScript, XML |
| * **Database Systems** | H2, MySQL |
| * **Platform** | Windows XP/7/10, Red Hat Linux, MS-Office 365, Windows Server 2012 R2 |
| * **AWS Foundational Services** | Elastic Compute Cloud (EC2), Simple Storage Device (S3), VPC, EBS |

**CERTIFICATIONS**

* **CCNA (Cisco Certified Network Associate)**  Routing and switching, **License 425754169125ATVK July 2016-July 2019**
* **Programming in Python,** Java with Devops, **MITx (Massachusetts Institute of Technology**) **on edX March 2017**

**WORK EXPERIENCE**

**Research Assistant,** **New Jersey Institute of Technology March 2017- October 2017**

* Research on how SDN can be integrated with enterprise technologies at Advanced Computing Edge Network Laboratory.
* Worked on establishment of **SDN (Software Defined Networking)** by enabling the communications among the **OpenFlow Switches** (**HPE 2920**) and the communication between OpenFlow Controller and the OpenFlow Switches on Red Hat Linux.
* Explored southbound features of **Ryu Controller** examined flow controls by changing OpenFlow flow entries in switches and performed packet analysis using Wireshark. Established out-of band **Control Plane** topology. Configured **Raspberry Pi 3** as Access Point to transmit data from wireless device to edge server coded using **Python**.
* Troubleshooting of connectivity issues using PING, Traceroute. Maintaining the Visio documentation of network topology.

**Office Assistant, New Jersey Institute of Technology**  **May 2016- May 2017**

* Web Content Management (UI) of the NJIT Residential Life Website utilising Microsoft Visual Studio and **Drupal**.
* Worked as team member for Career Development Service for development of a web application ***njitcfn.com***
* Developed the User Interface of the web application. Created wireframes in **Axure** and designed Use Cases, DFD’s in MS Visio.

**Network Engineer, Bharat Sanchar Nigam Limited (BSNL), Bhubaneswar, India January 2015-December 2015**

* Part of BSNL Network Support team providing **tier-1 and tier-2** network support.
* Experience in implementing IP Network Design and troubleshooting. Configure, install &Troubleshoot **Cisco Routers** and **Switches** (**6500, 3700, 2900 Series**). Diagnosed and repaired network routing and topology issues involving **OSPF**, **BGP** and **EIGRP**. Improve Network performance through route optimization and QoS implementation. Assist in the deployment of MPLS VPN’s circuits. Experience using **SolarWinds** to monitor and maintain client’s infrastructures and business processes.
* Supported and maintained **Cisco ASA Firewalls**, Cisco **VoIP** Phone system, **Access** **lists, VPN tunnels**, remote access and **NAT**.
* Developed open source SIP proxy servers and SIP registrar on Linux platform for testing purpose. Managed Microsoft Active Directory Windows 2008 R2 Server support and administrator access using Active Directory, Group Policy.
* Assist clients with isolating and resolving their LAN connectivity. Provide support coverage to 24x7 Support Desk for any issues.

**IT Support Intern, Bharat Sanchar Nigam Limited (BSNL), Bhubaneswar, India June 2014 – August 2014**

* Manage and support LAN/WLAN infrastructure for campus. Maintain Enterprise-grade Network monitoring system.
* Experience in network traffic monitoring and analysis using **Wireshark** and **Troubleshooting DHCP DNS** server and IP conflicts.
* Responsible for handling escalated tickets from Network Operations Center (NOC). Provide technical support and follow-up with vendors’ and ISP’s Support Engineers to resolve problems on Network elements.

**ACADEMIC PROJECTS**

**Title: Placement Optimization of ENs and APs in Wireless Powered Communication Network January 2017-May 2017**

* Worked on System Model; programmed in **C++,** implemented WPCN topologies for Problem Formulation for minimum Network Deployment cost. Simulated on Network Simulator 3(**NS3**) and results were executed using MATLAB.

**Title: Transport Protocols for Datacenter August 2016- December 2016**

* Implemented **Datacenter TCP (DCTCP)** in **NS3** and compared the results with conventional TCP. Coded and compared the results of the congestion window at the receiver side with the conventional TCP which shows that DCTCP outperforms TCP.

**Title: Configuration on Cisco 3750 (Layer 3 switch) & Windows Password Cracking August 2016- December 2016**

* Implemented routing protocols **RIPng, OSPF, EIGRP, VLAN, STP-Attributes and port security** on Cisco Catalyst 3750 switch.
* Monitoring Vulnerabilities using Nessus, running Nmap & decrypting password using John the Ripper on Backtrack 5 Linux.