**Sanjay P. Oza**

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**ENGINEERING MANAGER & TRAINER**

Dynamic, results-oriented, software engineering professional with multiple years of software development and engineering management expertise. Highly motivated, hands-on experience with overall life cycle development of networking products, including hardware and software. Experience working with foreign partners and clients, primarily in South Korea and Japan. Passion for teaching.

**PROFESSIONAL EXPERIENCE**

**BIG DATA tRUNK,** Fremont, CA **2017 – Present**

***Big Data, Machine Learning, Cloud Computing Trainer***

* Trained number of developers in big data technologies which included HDFS, MapReduce, Hive, Pig, NoSQL, Sqoop, Flume, Spark, etc.
* Developed course material with hands-on labs in Machine Learning using python for corporate clients.
* Did training in cloud computing to number of technical and non-technical corporate clients.
* Developed training material and taught non-technical clients in Artificial Intelligence, Machine Learning with demo labs in Microsoft Azure.

**Pribit Technology,** Seoul, South Korea **2019 – Present**

***Technical Advisor***

* Work with the engineering team on software architecture for the cloud computing switch/gateway.
* Managed patent filing information for the company where the role was to evaluate patent information and create patent documentation for the company’s network security application.
* Primary interface to the patent attorneys in United States (have filed for 2 patents)

**Sable Networks,** Santa Clara, CA **2006 – 2017**

***Director of Engineering and Operations***

Managed a team of 10-12 full time engineers and 6-8 contractors in the design and development of Traditional/Mobile Gateway products for this privately funded startup.

* Reporting to the CEO, responsible for all engineering management functions – hardware development, software development, manufacturing, and customer support.
* Create and manage budget for entire company’s operations at its headquarters in Santa Clara.
* Proven record in delivering L2/L3 features for forwarding and routing: VPN, Multicast, Firewall/ACL, Traffic management (QoS), tunneling. Also owner of overall software, which included Linux kernel, system services, and switch management.
* Active participant in the architecture and design of the company’s products.
* Responsible for release management, which included strategy, plans and delivery of both hardware and software. Created release notes and TOI (Transfer of Information charts) for the customer support team.
* ***Trained new employees and joint development partners in flow router software development.***

**Key Projects/Achievements:**

**Project: Next Generation Platform – Jeju**

Project code-named “Jeju” is the next generation platform replacing the current ASICs used for company’s products.

* Actively participated with the engineering team to select hardware components which included selection of third party NPU (Network Processor) and a layer-2 mac. Overall Bill of Materials (BOM) was a factor in selection.
* Managed hardware team of 3 in completion of hardware development and successfully bringing up the first/last prototype for the software team to use.
* Successfully executed plans to bring up software on the platform and pass traffic through all ports, running dynamic routing, system services and switch management.

**Project: Trusted IP Network – TIPN Solution**

Solution provides an innovative approach of secure communications between clients and servers (an enhanced VPN solution). This high availability, scalable end-to-end SDN-like solution involved 3G/LTE/LAN/Wi-Fi clients, TIPN access, TIPN service gateway, and TIPN controller.

* Worked with CTO/CEO to define requirements, managed development of high level design, and planned as well as successfully delivered solution.
* Solution delivered a number of functions including:
  + Receiving client access policies from the SDN TIPN controller and transmission of client OAM records to the server.
  + Hierarchical tunneling mechanisms (mobile IP over IP-GRE L3VPN) enabling mobile/wired TIPN client to securely communicate with servers. Partitioned the physical network into logical networks using VRF (Virtual Routing and Forwarding).
  + High availability gateway that used VRRP in conjunction with BGP interworking for a Gateway switchover during faults to ensure uninterrupted client server communication.

**Caspian Networks,** San Jose, CA **2000 – 2006**

***Manager Forwarding Software and µ-code Development***  *2004 - 2006*

***Member of Technical Staff*** *2000 – 2004*

System integrator for Caspian’s A50/A120 flow router when new software and hardware were integrated for the first time. Member of the high level design team during overall software architecture definition.

***Trained new employees and joint development partners in flow router software development***

**Key Projects (Software Development):**

* Technical lead for the design and development of firewall/ACL software for traffic transiting the router and destined to the application processor card.

**Key Projects (Manager)**

* Worked closely with product management, marketing, and sales teams to prioritize the implementation of features for various releases.
* Successfully managed delivery of a number of forwarding/data plane features, namely:
  + A number of Traffic management features for the flow routers
  + IPv4 Multicast forwarding for PIM-SM/PIM-SSM, Transparent Port.
  + Dynamic Flow Identification (DFI), a key Quality of Service differentiator for the Caspian’s Flow Router.

**Nortel Networks,** RTP, NC  **1997 - 2000**

***ATM Software Design Manager*** *1998 - 2000*

***Member of Technical Staff*** *1997 – 1998*

1. Managed a team of over 10 software engineers for design and development of MG4000 TDM to ATM voice gateway.

**ADDITIONAL EXPERIENCE**

**Nortel Networks,** Ottawa, ON  **1995 - 1996**

*Software Consultant – Spectrum ISUP Development*

**MetLife**, Ottawa, ON **1991 – 1994**

*Computer Systems Analyst*

**TECHNICAL SKILLS**

**Programming Languages**: C/C++, Java, Python, CORBA,

**Operating Systems**: Linux, MS Windows, VxWorks, pSOS

**Networking**: L2/L3 switching, TCP/IP, IPv4, IPv6, Tunneling (IP-IP, IP-GRE, MPLS-IP-G), Gigabit Ethernet, NAT, Firewall, DHCP, VRRP, basic knowledge of OSPF, MPLS, BGP, RSVP.

**Technologies**: SDN, NFV, Private/Public Cloud, Big Data Technologies, Machine Learning and Deep Learning.

**EDUCATION**

**Bachelor of Computer Science**,

*University of New Brunswick, Fredericton, Canada*

**Bachelor of Science** (Chemistry)

*University of Bombay, Mumbai, India*

**PATENTS**

1. Methods and System for Detecting and Mitigating Denial of Service Attacks (US 9,167,004). June 2015, *Surya Pappu, Sanjay Oza*.
2. Patent Pending: Individually assigned alias network addresses for contacting a server – *Surya Pappu, Kote Anumolu, Sanjay Oza, and Paul Jezioranski*.