

# Shenghua Li, PMP, PhD, CCIE

Work status: US Permanent Resident

(585) 496-4598

[Shenghua.J.Li@gmail.com](mailto:Shenghua.J.Li@gmail.com)

8-2F Winding Brooks Dr.  
Guilderland, NY 12084

## EDUCATION:

- PhD in Bioinformatics/Mathematics, Virginia Tech, Blacksburg, VA, 2008.
- M.S. in Genetics, Fudan University, Shanghai, China, 2004.
- B.S. in Biology, Nanchang University, Nanchang, Jiangxi, China, 1997.

## SUMMARY OF QUALIFICATIONS:

- 10+ years of experience in the design and deployment of large-scale internetwork and voice/data/video integration solutions for service providers and large-size enterprises (Bank, Telecom, Education, Media, Transportation and other industries).
- CCIE-level of technical accumulation with Cisco, Juniper and other vendor's products and internetworking technologies.
- 6+ years of experiences with leadership in team-work management, vendor management and project management, PMP certificated.

## TECHNICAL SETS:

### Internetwork Technologies:

- WAN: Frame Relay, TDM (T1/T3), ATM, MPLS/VPN, Metro Ethernet, SONET, ADSL.
- LAN: Ethernet, Gigabit switch, VLAN, QinQ, VTP/STP, Etherchannel.
- Routing protocol: RIP/RIP2, EIGRP, OSPF, BGP4, IS-IS, PIM DM/SM, IGMP, MSDP.
- VOIP: Cisco IPT, CallManager, Cisco Unity, H.323, SIP, PBX, QoS.
- Security: Firewall, ACL, NAT/PAT, VPN (IPSec, PPTP, MPLS/VPN, VPLS, L2TP3, AToM, SSL VPN), IPS, AAA, RADIUS.
- Server/Router redundancy: HSRP, VRRP, GLBP, Load balancing.
- Wireless: Wireless LAN, 802.11a/b/g/n, Wi-Fi, WEP/WPA/WPA2, Fat/Thin AP, WLC.
- Application: TCP, UDP, RTP, DNS, DHCP, HTTP, FTP, SSH, SFTP, TFTP, SNMP, etc.

### Network Products:

- Cisco routers (28xx, 72xx, 76xx, 12xxx), Cisco switches ( 29xx, 37xx, 45xx, 65xx).
- Juniper routers (J & M series), Juniper switches (EX/WX series), JUNOS platform.
- Cisco Firewall PIX/ASA/VPN, Juniper NetScreen, Checkpoint/Nokia, SonicWALL VPN.
- Alcatel WAN Switches: MainStreet (TDM/ATM/Frame Relay/MPLS).
- Alcatel LAN Switches and Routers: OmniSwitch/Router/Access Server/ADSL.
- Cisco UC500, Call Manager, Voice Gateway, Gatekeeper/MCU, IP telephony.

### System and Programming:

- Redhat Linux, Ubuntu, Fedora, Solaris, SCO UNIX.
- Windows Server 2000/2003 Active Directory/DNS/Exchange Server.
- Databases (MySQL, Oracle), DBA.
- Web server IIS, Apache, HTTP/PHP, Perl.
- Script language and C/C++ programming.
- Network management system: Hp OpenView, Sniffer, WireShark.

**EMPLOYMENT HISTORY:**

**Jun 2009 to Current: University of Rochester, Rochester, NY, Research Scientist.**

Job description: Mathematical modeler.

**Mar 2009 to Current: Self-employed, Rochester, NY, Network Consultant.**

Job description: Design, deploy/remodel the IT/network facilities and servers, including routers/switches, SIP VOIP, firewall, VPN, wireless LAN, Windows Servers, BlackBerry Server, etc, for small- and mid-size companies around NYC and Rochester.

Project/Technology highlights:

- Redesigned the IT/network infrastructure for a Wall-Street financial company, including the VOIP, LAN, Routers/Switches, VPN, NAS/Backup, to meet the critical requirements of redundancy/high performance for trading, adjusting and trouble-shooting all the PCs and servers.
- Reconfigured the IP telephony (Cisco UC520, SIP VOIP, LAN/Wireless LAN, Call Plan/Voicemail) for a funding-raising foundation at NYC, reconfigured the PCs, Macs, Wireless and VPNs as they moved to a new office.
- Redesigned the IPT phone system (CallManager Express, Cisco 2800) for a real estate company at NYC, trouble-shooting and reconfigure the Windows 2003 Server and Exchange Server, BlackBerry Server as they moved to a new office.

**Aug 2004 to Dec 2008: Virginia Tech, Blacksburg, VA, PhD student in Genetics, Bioinformatics and Computational Biology Program, Research Assistant.**

Thesis title: Quantitative modeling of the molecular mechanism controlling the asymmetric cell division cycle in *Caulobacter crescentus*.

IT Management highlights:

- Managed the webserver of the lab for 24x7 operation.
- Managed the group network facilities (routers, switches, wired/Wireless LAN).
- Trouble-shooting and upgraded all the PC/MACs, laptops, HP Network printers.
- Trouble-shooting the Web/SSL/Oracle servers for the Education Department.
- Passed CCIE written exam, obtained JNCIS certificate.

**Mar 2001 to Oct 2003: Tsinghua Unisplendour Ltd., Shanghai, China, Senior Network Engineer/Project Manager.**

Job description: Tsinghua Unisplendour is a national IT system integrator. I served as the regional director of technology/management for a team of five people.

Project/Technology highlights:

- Managed the design, deployment and optimization of the IT infrastructure, including 1000/100M switches and routers (100+ nodes), internet access, firewall, IBM SAN backup servers, IBM AIX/Lotus Notes application server, WINS/DNS server, DHCP server, Antivirus server, print servers and 2000+ PCs and laptops, for a large-size media group (the second largest newspaper group in China, 2000+ seats). Budget \$1.2 million.

- Deployed and implemented an ADSL access network using Alcatel DSLAMs/Switch and access servers (100+ nodes) for a service provider. Budget \$1.5 million.
- Designed and deployed numerous LAN/WAN solutions using Cisco Routers/Switches and Alcatel OminiSwitch/Access products. Budgets ranged from \$1,000 ~ 700,000.

**Aug 1998 to Aug 2000: Vodatel Network Holdings Ltd., Nanchang, China, Senior Network Engineer/ Project manager.**

Job description: Vodatel is a publicly listed company served as WAN network integrator for service providers, banks and other large-size enterprises. I served as the project manager/senior network engineer.

Project/Technology highlights:

- Designed, staged and deployed IP/MPLS/ATM/Frame Relay/TDM (voice and data) switch backbone (300+ nodes) NewBridge/Alcatel ATM switches to support the converged voice, video and data services for the public, total budget \$8 million.
- Internetworking Cisco 12000/7000/4500 routers with ATM IP/MPLS/ATM/Frame Relay/TDM(voice and data) switches for carriers IP network infrastructure in providing public Internet access service.
- Designed and deployed two Video/Voice infrastructure over IP for two different regional military units using Polycom products (35 and 15 nodes respectively, total budget \$200,000).
- Engaged as the senior network consultant for a complete IP network infrastructure re-engineering for a carrier with Juniper M-series products.
- Designed and deployed various Cisco routers/switches for medium and large-scale Local Area Networks for local banks and other enterprises.
- Engaged in trouble shooting and problem resolution of elusive customer network difficulties. I operated protocol analyzers, BERT sets, and other network analysis tools to assist in troubleshooting and documentation.
- Provided pre-sales technical expertise to sales team.

**Jul 1997 to Jul 1998: Jiangxi Heading Tech. Ltd, Nanchang, Jiangxi Province, China, Principal Network Engineer.**

Job description: Jiangxi Heading Tech. was a network integrator for local banks and other customers in Jiangxi Province, China. I served as the principal engineer, responsible for the design and deployment of IP network and systems.

Project/Technology highlights:

- Designed and deployed IP network infrastructure (100+ Cisco router/switch nodes/2000+ PC seats) for a regional bank, budget \$0.8 million.
- Deployed a remote-access platform for a telecommunication billing system.
- Leader of a small team of network engineers and operations personnel.
- Managed and maintained relationships with key telecom vendors.
- Coordinated the delivery of services to all dedicated customers.
- Presented technologies and solutions to potential clients.