Sushant Mongia

1018 Azalea Drive, North Brunswick, NJ 08902│sushantmongia@gmail.com│linkedin.com/in/sushantmongia│732-213-6148│smongia.com

OBJECTIVE: To obtain a Full-Time position in the field of Computer Networking

EDUCATION

Masters - Computer Engineering - Stevens Institute of Technology, NJ (GPA – 4.0)   **Expected – May 2018**
Course Work: Design and Analysis of Network Systems, Python, Machine Learning, Master's Thesis - Home Networks
Bachelors - Electronics and Communication Engineering - Amity University, India (GPA – 3.9)   **08/2011 – 05/2015**
Course Work: Data Communication Networks, C, C++, Java, Operating Systems, Wireless Communications

EXPERIENCE

Verizon, Stevens Institute of Technology – Design Architect and Lead Developer
SmartRouter – with Ex - Vice President, Bell Labs   **NJ - 05/2017 - Present**
- Leading a team of 6 students to develop an iOS app for the Smart Router
- Developing Traffic Prioritization, Bandwidth Capping and Network Slicing Algorithms for home routers (**Patent Pending**)
- Setting up and troubleshooting 2 Home Network test beds with OpenWRT based routers (**Patent Pending**)
- Conducting Experiments to display competing flow problems in home routers for Verizon

Analyzing and Improving Video Quality of Experience over IP Networks - with Ex - Vice President , Bell Labs   **NJ - 10/2016 – 05/2017**
- Developed an end-to-end delivery mechanism for testing Video Quality of experience
- Setup ffmpeg, DASHJS and MP4Box based testbed for MPEG-DASH – Live streaming experiments
- Setup Content Delivery Network (Tri-State Area) for MPEG-DASH Live Streaming (Demo on request)
- Handled sensitive data (Verizon & OnCue mpd files) and reported to Verizon Texas Facility

Stevens Institute of Technology
Graduate Research Assistant (CPE) – Verizon Video Research Lab   **NJ – 01/2017 – Present**
Teaching Assistant (CPE - 517) & Student Grader (CPE – 551)   **NJ – 01/2017 – Present**
ITTM-MTNL - Senior Intern   **India - 05/2014 - 08/2014**
Transmission Networks and Equipments for Optical Fiber Communication System
- Selected 1 from 7 interns for Senior Intern position to lead 15 junior interns
- Conducted experiments on PST Network, OFC Network, Cellular Network, 3G and 4G systems
- Special Achievement: Developed OFC Service Downtime Reporting System

British Standards Institution - Professional Trainer   **India - 09/2013 - 04/2014**
Trained a class of 30 students on Six Sigma Green Belt Level Concepts - DMAIC
Amity University - Trainee   **India - 05/2013 - 08/2013**
Self Aligning Laser Communicator: Improved Laser Communication Systems efficiency to 80%

TECHNICAL SKILLS

Networking Tools:	Wireshark, Cisco Packet Tracer, GNS3, FFMpeg, MP4Box, DASHJS Player, Bento4, Shaka Player
Streaming Protocols:	MPEG-DASH, HLS, RTP, RTSP, RTMP, SPDY, QUIC
Routing and Switching Protocols:	OSPF,RIP, EIGRP, TCP/IP, UDP, BGP
Computer Networking:	NTP, Socket Programming, OpenvSwitch, OpenWRT, Remote Login
OS:	Ubuntu(Proficient), Linux, Windows (NT, XP, 7,8,8.1,10), Mac(10.10,10.11,10.12)
Programming Languages:	C++ (Proficient),Python, C, Golang(Go)
Certifications	CCNA (Expected Nov 2017), Data Structures and Algorithm(IIT-Madras), C++, C, Six Sigma(Green-Belt)

RESEARCH WORK

Master's Thesis: Home Network Manager – with Senior Professor   **Verizon Research Grant - 01/2017 - Present**
- Analyzing and Developing a UI based system to improve the Wireless Last Mile Link for Home Networks
- Developed an end-to-end delivery system for Low Latency Live Video Streaming **(Patent Pending)**
- Currently engaged in analyzing and providing recommendations for MPEG-DASH Live Streaming to Verizon Texas Facility

Patents:
System and Framework for extraneously detecting frame-losses during video playback – Pending, 2017
System and Framework for slicing network resource for ultra-low latency streaming – Pending, 2017
Undergrad Research: Senior Design Project - System Accuracy **100%**   **05/2015 – 12/2015**
- Selected from 240 students for developing a Hand Gesture Recognition based American Sign Language Detection System
- Developed a novel technique to remove ambiguities among alphabets in Sign Language Recognition Device
- IEEE (978-1-5090-0147-7): A Framework for Hand Gesture Recognition based on fusion of Flex, Contact and Accelerometer Sensor

ACADEMIC PROJECTS

Measurement and Analysis of MPEG-DASH Live Streaming and nationwide Internet scale experiments   **01/2017 – Present**
- Lead Developer- MPEG-DASH Protocol based live streaming, deployed an end-to-end system for live streaming
- Design Architect- Designed CDN for Live streaming (Current Implementation: Tri-State Area)

AWS based Internet Scale Experiments: **06/2017 – 09/2017**
- Setup, maintain and troubleshoot 8 Amazon EC2 Servers across WA,OR,CA and N. Virginia
- Lead a team of 3 undergrad students and conducted a measurement study of MPEG-DASH over the Internet.

Measuring Video Quality of Experience over IP Network: **06/2017 – 08/2017**
- Designed and Developed a unique coding scheme for measurement frame-loss over IP Network **(Patent Pending)**

Available Full-Time : December 2017

Sushant Mongia

1018 Azalea Drive
North Brunswick, NJ 08902
(732) 213-6148
sushantmongia@gmail.com

REFERENCES

Dr. Sudhir Ahuja

Ex – Vice President, Bell Labs
(848) 888-2323
dr_s_ahuja@yahoo.com

Dr. Mukund Iyengar

Professor
Stevens Institute of Technology
(201) 665-0070
miyengar@stevens.edu

Dr. Victor Lawrence

Professor
Stevens Institute of Technology
Ex – Vice President, Bell Labs
(732) 407-9500
victor.lawrence@gmail.com