George Varghese
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PROFESSIONAL PREPARATION

Indian Institute of Technology, Bombay	Electrical Engineering	BTech	1981
North Carolina State University, Raleigh	Computer Science	MS	1983
Massachusetts Institute of Tech, Cambridge	Computer Science	PhD	1993

APPOINTMENTS

University of California, Los Angeles	Professor	*06/01/2016* –
Microsoft Research	Principal Researcher	2011 – Present
University of California, San Diego	Professor	1999 – 2012
Washington University, St. Louis	Associate Professor	1993 – 1999

PRODUCTS

Products most closely related to proposal

1) Scaling Network Verification using Symmetry and Surgery, G. Plotkin, N. Bjorner, N. Lopes, A. Rybalchenko, G, Varghese, POPL 2016, Jan 2016.
2) Checking Beliefs in Dynamic Networks, N. Lopes, N. Bjorner, P. Godefroid, K. Jayaraman, G. Varghese, NSDI 2015, May 2015.
3) Compiling Packet Programs to Recongurable Switches, L. Yan, L. Jose, G. Varghese, N. McKeown, NSDI 2015, May 2015.
4) Header Space Analysis: Static Checking for Networks, P. Kazemanian, G. Varghese, N. McKeown, NSDI 2012. **Applied Networking Research Prize** by the Internet Society in 2014, and presented to the IETF.
5) Automatic Test Packet Generation, H. Zheng, P. Kazemanian, G. Varghese, N. McKeown, CoNEXT 2012. (Fast tracked for IEEE Transactions Networking **among best papers of CONEXT 2012**).

Other significant products

1) P4: programming protocol-independent packet processors , P. Bosshart, D. Daly, G. Gibb, M. Izzard, N. McKeown, J. Rexford, C .Schlesinger, D. Talayco, A. Vahdat, G. Varghese, D. Walker: Computer Communication Review 44(3): 87-95, 2014. Best of CCR award.
2) Forwarding Metamorphosis: Flexible Match Action processing in hardware for SDNs. Pat Bosshart, Glen Gibb, Hun-Suk Kim, George Varghese, Martin Izzard, Nick McKeown, Fernando Mujica, Mark Horowitz SIGCOMM 2013 (initial ideas being pursued vigorously by a startup called Barefoot Networks).

3) Real time Network Policy Checking Using Header Space Analysis, P. Kazemanian, M. Chang, H. Zheng, G. Varghese, N. McKeown,S. Whyte, NSDI 2013.

4) C. Kozanitis, J. Huber, S. Singh G. Varghese. Leaping Multiple Headers in a Single Bound. Wire Speed Parsing using the Kangaroo System. INFOCOM 2010, March 2010, San Diego.

5) V. Srinivasan and G. Varghese, Fast Address Lookup by Controlled Prefix Expansion, ACM Transactions on Computer Systems (TOCS), Feb 1999.

SYNERGISTIC ACTIVITIES

1) Co-taught (with Bjorner) SIGCOMM Tutorial on Network Verification.

2) Co-organizer (with Bjorner and Mahajan): Microsoft Faculty Summit Session, Summer 2015, From Electronic Design Automation to Network Design Automation

3) UC Berkeley Distinguished Lecture: When Hoare meets Cerf (Network Verification), September 2015.

4) Conference Co-chair (with Padmanabhan): SIGCOMM 2012, Helsinki, Finland.

5) Program committees: ACM Special Interest Group on Communication (SIGCOMM) Annual Conference 2008, 1996, 1997, 1999. 2000, 2002. ACM Conference on Principles of Distributed Computing (PODC) 1995. IEEE INFOCOM 1995. 3rd and 4th Workshop on Self-stabilizing systems (WSS 97, 99). NSF Networking Review Panels: Nov 95, July 98, July 2005, July 2009