Rajesh Veeraraghavan

Walsh School of Foreign Service Georgetown University Washington, DC 20817 (1) 510-316-1001 rv408@georgetown.edu

Professional Positions

2016- Assistant Professor, Science Technology and International Affairs, School of Foreign Service, Georgetown University

November 2021- June 2022 Visiting Researcher, People and AI Research, Google Research

2015-16 and 2018-19 Postdoctoral Fellow, Watson Institute of International Affairs, Brown University

2014-15 Fellow, Berkman Center for Internet and Society, Harvard University

2014-16 Consultant, Transparency and Accountability Initiative, Open Society Foundation, London

2008 Consultant, Bill and Melinda Gates Foundation

2005-07 Associate Researcher, Technology for Emerging Markets, Microsoft Research India 1998-05 Senior Software Engineer, Microsoft Corporation

Education

Ph.D., Information Systems. University of California, Berkeley. May 2015

M.S., Computer Science. Clemson University. December 1998

M.A., Economics. Cleveland State University. May 1996

M.SC (Hons) Economics and Master of Management Studies. Birla Institute of Technology and Science Pilani. May 1995

Honors, Fellowships and Awards

Google Research Award (2021)

Recognition from Delhi Govt (Deputy Chief Minister) for COVID relief research (2020)

Fellow, Berkman Center for Internet and Society, Harvard University (2014-15)

Best Paper Award under Digital and Social Media Category (HICSS, 2014)

Best Papers at Int'l Conference on Information and Communication Technology and Development (2007)

Research Fellow, Microsoft Research (2007)

Microsoft Ship-It Awards: Microsoft Office, Windows, IPTV, Ebook Reader, Xbox (1998-2005)

Research And Scholarly Activities

Book

Patching Development: Informational Politics and Social Change in India. *Oxford University Press*, Modern South Asia Series. December 2021.

Peer Reviewed Publications (Journals And conferences)¹

- 1. Nithya Sambasivan. **Rajesh Veeraraghavan**. The Deskilling of Domain Expertise in AI Development. Proceedings of The ACM Conference on Human Factors in Computing Systems (CHI 2022).
- 2. **Rajesh Veeraraghavan**. Cat and Mouse Game: Patching Bureaucratic Work Relations by Patching Technologies. *PACM: Human-Computer Interaction: Computer-Supported Cooperative Work and Social Computing (CSCW)*, Vol. 5, No. CSCW1, Article 186,Pages 1-21. April 2021. ACM, New York, NY, USA.
- 3. Vivek Srinivasan, Rajendran, Narayanan, Dipanjan Chakraborty, **Rajesh Veeraraghavan**, Vibhore Vardhan. Are Technology-enabled Cash Transfers Really 'Direct'? Economic and Political Weekly, 53(30), Pages 58-64, 2018.
- 4. **Rajesh, Veeraraghavan**. Strategies for Synergy in a High Modernist Project: Two Community Responses to India's NREGA Rural Work Program. November, 2017. *World Development* Volume 99, Pages 203-213.
- 5. Megan Finn, Janaki Srinivasan, **Rajesh Veeraraghavan**. Seeing with Paper: Government Documents and Material Participation.Documents and work track. (authorship equally shared) *HICCS*. Hawaii, January 2014. (Best Paper Award under Digital and Social Media Category)
- 6. **Rajesh Veeraraghavan** Dealing with the Digital Panopticon: The Use and Subversion of ICT in an Indian Bureaucracy. *IEEE/ACM Int'l Conference on Information & Communication Technologies for Development*, Cape Town, South Africa, December 2013.
- 7. **Rajesh Veeraraghavan**, Naga Yasodhar, Kentaro Toyama, Warana Unwired: Replacing PCs with Mobile Phones in a Rural Sugarcane Cooperative. *Information Technologies & International Development*, Vol. 5, Issue 1, pp 81-95, Spring 2009.

¹Peer reviewed conferences are a legitimate form of publication in my field.

- 8. Rikin Gandhi, **Rajesh Veeraraghavan**, Kentaro Toyama, Vanaja Ramprasad. Digital Green: Participatory Video for Agricultural Extension. *Information Technologies & International Development*, Vol. 5, Issue 1, pp1-15, Spring 2009.²
- 9. **Rajesh Veeraraghavan**, Gauravdeep Singh, Bharati Pitti, Greg Smith, Brian Meyers, and Kentaro Toyama. (2005). Towards Accurate Measurement of Computer Usage in a Rural Kiosk. *Third International Conference on Innovative applications of Information Technology for Developing World Asian Applied Computing Conference*, Kathmandu, Nepal, December 2005.
- 10. Alan Kaplan, Bradley Schmerl, and **Rajesh Veeraraghavan**. Toward Automated Support for Transparent Interoperable Queries. *Journal of Information Technology and Management*, Vol. 3(4):387-406, October 2002.

Book Chapters

Rajesh Veeraraghavan. "Can information make the subaltern speak?" in Unpacking Participatory Democracy. edited by Aruna Roy and Suchi Pande. *Orient Blackswan*. Under Review.

Papers Under Review

- 1. Governance by Patching, Under Review at Studies of Comparative International Development (with Atul Pokharel).
- 2. Inheriting Discrimination: Datafication Encounters of Marginalised Workers in India (with Azaghu Meena, Nithya Sambasivan, Vivek Srinivasan, Vinodh Kumar, and Shivani Kapania (Under Review)

Work in Progress

Seeing the City: Locating Public Services in Planned & Informal Settlements in Delhi³ (with Bob Bell, HridBijoy Chakraborty, Aashish Gupta, Patrick Heller)

Data and marginalized citizens work: Worker cards: Rendering work process visible in Artificial Intelligence (with Google Research)

Data for Development: The impact of digitizing administrative systems in Bihar, India. (with M.R. Sharan (University of Maryland) Imam Sen (University of Maryland))

²This is one of the most cited papers in ICTD. I co-founded the non-profit Digital Green that has helped millions of farmers in India, Ethiopia and other countries. www.digitalgreen.org

³As of June 2020, over 500,000 views on our Hunger Relief Center Map. (last checked April 2020, before the site was taken over by the Delhi Government). The work also got a lot of press attention and a letter from the deputy chief minister in Delhi thanking us for the work. https://sfs.georgetown.edu/sfs-researchers-use-data-to-assist-communities-in-delhi-during-the-covid-pandemic/

Conferences

Meena Azhagu, **Rajesh Veeraraghavan**, Vivek Srinivasan, Shivani Kapania, Vinodkumar Prabhakaran, and Nithya Sambasivan. 2021. Tactics in Epistemic Production by the Marginalized on Data-driven Systems. CHI 2021 Workshop, Artificially Intelligent Technology for/with the Margins.

Bob Bell, **Rajesh Veeraraghavan**. Using Convolutional Networks and Very-High Resolution Satellite Imagery to Classify New Delhi into Planned vs. Informal Settlements. Bloomberg DG₄X 2019. (with Bob Bell)

Bob Bell, **Rajesh Veeraraghavan**. Locating Informal Urban Settlements in Harvard CRCS AI for Social Good Workshop. 2020

Hridbijoy Chakraborty, Bob Bell, Anya Wahal, Shubhada Ajay Varde, Sky Colloredo-Mansfeld, and **Rajesh Veeraraghavan**. Reluctant Intermediaries: Examining the Labor in Opening Government Data. Data4Good: Designing for Diversity and Development Workshop at AVI 2020.

Rajesh Veeraraghavan, Gauravdeep Singh, Kentaro Toyama, and Deepak Menon. (poster, 2006). Kiosk Usage Measurement using a Software Logging Tool, *IEEE/ACM Int'l Conference on Information & Communication Technologies for Development*, Berkeley, USA, 2006.

Grants

Georgetown Summer Grant. Data for Development. Summer 2022.

Georgetown Internal Grant. Data for Development. November 2021

Massive Data Institute Grant. Georgetown University. 2018,2019.

Georgetown University. Summer Grant. 2017.

Georgetown University, Georgetown India Initiative. 2017.

Brown University, Center for Contemporary South Asia. 2016.

Brown University, Watson Collaborative Grant, 2015.

Harvard University, Fellow, Berkman Center of Internet and Society (2014-15).

USAID Development Impact Lab, Innovate Grant(2014-2015),

University of California Dissertation Year Fellowship (2013-2014)

UC Berkeley Graduate Division Summer Research Grant (2011,2013)

UC Berkeley Normative Time Fellowship (2012)

Maharaj Kaul Memorial Grants for Travel and Research, Center for South Asia, UC Berkeley (2012)

Mentored Research Award, University of California Berkeley (2010-2011)

Graduate Fellowship, School of Information, University of California Berkeley (2007-2010)

Bill and Melinda Gates Foundation, Digital Green. 2007

Research Fellowship, Microsoft Research India (2007)

Humanitarian Award for Student working for development, Clemson, SC 1998

Invited Talks

Book talks **Patching Development**:

MIT (Feb 16), Georgetown University (Feb 23), University of Massachusetts Amherst South Asian Section on Public Administration (Feb 21), IIT Delhi (Feb, 2022), Data & Society (March 3, 2022), University of California Berkeley (March 9, 2022), University of Michigan (March 17, 2022), Rutgers(March 29), NYU (March 31, 2022), University of California San Diego (April 25, 2022), Brown University (May 2) University of Washington (May 9, 2022), American University (Fall 2022), University of Toronto.

Reluctant Intermediaries: Examining the Labor in Opening Government Data. Data4Good: Designing for Diversity and Development Workshop at AVI 2020. (with Chakaraborty et. al.)

Locating Informal Urban Settlements in Harvard CRCS AI for Social Good Workshop. 2020 [Paper] (with Bob Bell)

Using Convolutional Networks and Very-High Resolution Satellite Imagery to Classify New Delhi into Planned vs. Informal Settlements. Bloomberg DG₄X 2019. (with Bob Bell) [Poster]

Fellow talk series: Watson Institute, Brown University, April 17, 2019.

Baltimore India Workshop: Governance by Patching: The politics of Technology use within a bureaucracy. Johns Hopkins University, Baltimore, May 4-5, 2017.

India Political Economy Workshop: Going beyond Pessimistic Readings of the High-Modernist State and Optimistic Visions of State-Society Synergy: An Empirical Analysis of India's NREGA Rural Work Program. Carnegie Endowment for International Peace, Washington, DC, December 3, 2016.

Unpacking Participatory Democracy: Impact of movements on democratic governance, McGill University, Montreal, November 23, 2016.

Tech for Accountability: A Brownbag on the Power of Civic Tech, Georgetown University, September 26, 2016.

Open Governance and Democratizing Surveillance: A Study of NREGA in Andhra Pradesh, India, Watson Institute, Brown University, March 11, 2016.

Comparative Dalit and Tribal villages in NREGA, Andhra Pradesh, Postdoctoral work-inprogress talk, Brown University, November 23, 2015.

Understanding the Andhra Model of Governance, STS Circle, Kennedy School of Government, Harvard University, April 20, 2015

Can the state use information technology to police itself? Science, Technology and International Affairs, Georgetown University, November 24, 2014

Can the state use information technology to police itself? A study of Open Governance in Andhra Pradesh, SUNY Albany, Albany, March 27, 2014.

Open Governance in India, Stanford Seminar on Liberation Technologies, Stanford University, Stanford, CA, Nov. 21, 2013.

Controlling "last-mile" corruption: The Use and Subversion of ICT in a South Indian Bureaucracy, Michigan State University, East Lansing, MI, Oct. 31, 2013.

Warana Unwired, a review and research exchange with Bill Gates, Chairman Microsoft Corporation, Seattle, WA, February 14, 2008.

Digital Green: Locally Recorded and Screened Video for Disseminating Good Agricultural Practices, WorldAgInfo Workshop, Cornell University, Ithaca, NY, Oct. 2007.

Digital Green and Warana Unwired: Leveraging technology to improve agricultural information dissemination for India's small and marginal farmers. Cornell International Institute for Food, Agriculture, and Development (CIIFAD), Ithaca, NY, May 2007.

SMS Server for Rural India, Emerging Telephony Conference, San Francisco, CA Feb 2007.

Technology and Development in Agriculture at PATH, Seattle, WA, June 2006.

Digital Green and Warana Unwired Research exchange @ Bill and Melinda Gates Foundation, Seattle, WA, June 2006.

Using SMS-enabled mobile phones as an alternative to connected PC kiosks in developing countries? Computer Science Department, University of Washington, June 2006.

Invited Workshop and Panels

Book Workshop. The Annual Conference on South Asia, University of Wisconsin, Madison, October 2018.

Transparency regimes and agency of lower-level bureaucrat. Panel titled Technology, Politics and Governance in India. The Annual Conference on South Asia, University of Wisconsin, Madison, October 2017.

Going Beyond Governance: New Research Directions on States and Citizens in the Global South. Watson Institute International Public Affairs, Brown University, March 18-19, 2016.

ICT4Ag:Opportunities and Challenges for using Technology to Reach Rural Farmers in Developing World. International Conference on Information and Communication Technologies and Development (ICTD), Cape Town, South Africa. December 2013.

Understanding Right to Education Act (RTE), Workshop, (co-led with Netika Raval), AID Bay Area and ASHA Stanford, Stanford, CA. September 13, 2009.

Case studies in Information Technology in Agriculture, Workshop(with Tapan Parikh), Beahrs Environmental Leadership program, UC Berkeley, July 2, 2009.

Does Information Technology acts as an enabler for Human Rights? Panel, Human Rights Conference, Bangalore, August 2005

Teaching

Data and Democracies: Politics of Data and Algorithms (Spring 2021)

Proseminar (Data and Politics) (Fall 2019)

Big Data and its Politics, Georgetown University (Spring 2017, 2018)

Information Technology and Development, Georgetown University (Fall 2017,2018)

Surveillance, Governance and Information Technology, Georgetown University (Fall 2016, 2017, 2019)

Information, Technology and Governance, Brown University (Fall 2015, Spring 2019)

Guest Lecture, Political Economy of Development in Rural India, Stanford University (March 2012).

Guest Lecture, Technology and Poverty, University of California, Berkeley (Summer 2012, Spring 2008).

Teaching Assistant, Clemson University (1996-1998). Taught four course offerings of the Computer Science department at Clemson University. Led weekly discussion sections, graded assignments and exams, and performed administrative responsibilities.

Teaching Assistant, Introductory Economics for Doctors, Birla Institute of Technology and Science, Pilani (1993) Developed course materials for Doctors in the Christian Medical College related to Health economics.

Advising

Anya Wahal, Mortara Fellow (2019-)

Kell Crowley (Advisor: Undergraduate Thesis (2020-2021)

Zane Chowdry (Advisor: Undergraduate Thesis (2020-2021)

Sky Coloredo-Manfeld, Fulbright Fellow (2019-2020)

Erum Haider (Ph.D, Georgetown, dissertation committee) (2017-2020)

Shubadha Ajay Varde, Research Assistant (2018-2020)

Caroline Schauder (Advisor: Undergraduate Thesis, Georgetown) (2019-20)

Siona Sharma (Advisor: Undergraduate Thesis, Georgetown) (2019-20)

Pyay Aung San, Research Assistant (2019-)

Sumedha Jaloti (Masters Student, Public Policy, Georgetown)(2017-)

Prianca Pai (Undergraduate, Georgetown)(2018-)

Sarah Santos (Advisor: Undergraduate Thesis, Georgetown)(2017-)

Krupa Kadiwala (Advisor: Undergraduate Thesis, Georgetown)(2017-)

Rikin Gandhi (Digital Green, 2006-2007)

Sireesh Sriramula (Intern @ MSR, BITS Pilani, 2007)

Naga Yasodhar Kattula (Intern @ MSR, BITS Pilani, 2007)

Bharathi Pitti (Intern @ MSR, BITS Pilani, 2006)

Gauravdeep Singh (Intern @ MSR, BITS Pilani, 2006)

Public Policy Impact and Writing

Digital Urban Observatory: Working with Delhi Government on COVID-India relief, 2020

"They hit back, and it felt good", India Together, November, 2010.

Stages of design in technology for global development Donner, Computer with J., Gandhi, Javid, P., Medhi, I., Ratan, A., Toyama, June, 2008.

Co-founder Digital Green, 2007.

Rajesh Veeraraghavan (contributor) "Report for the Government of India: Review of Research on Kiosks/Telecenters in India" Presented to the Common Services Centers Project, Planning Commission of India, edited by Kuriyan, R., Toyama, K. May 2007.

Patents

Enhanced short message service (SMS), Microsoft Research, US 7899475 B2

Private data transmission via an analog broadcast transmission, Microsoft Research, US 20080101415 A1

Strategies for providing assets to client devices, Microsoft Research, US 20070050196 A1

Service

Georgetown University: Member of the Tech, Ethics and Society, Joint Working Group (all of Georgetown), Member of the Global Anti Racism Group, Member of the Spatial Data committee, Search committee for NTL search at STIA, Chair of the Business, Growth and Development concentration at STIA, Task force on Data and Ethics, Culture and Politics Honors and Prize Committee, Honors Council @ SFS, Faculty Board in the Georgetown India Initiative.

Member Public Interest Technology, Harvard Berkman Klein Center's Network.

Chair, Information and Communication Technology for Development conference, Ahmedabad, India, Janurary, 2019.

Co-Founder and Board Member, Digital Green Foundation, 2007 - present.

PC Member ACM SIGCAS Conference on Computing and Sustainable Societies (COMPASS) 2018,2020.

Senior PC Member IEEE/ACM Int'l Conf. on Information Communication Technologies for Development, 2017.

PC Member IEEE/ACM Int'l Conf. on Information Communication Technologies for Development, 2013,2015,2020,2022.

Digital Advisory Board, Hesperian Foundation, Berkeley 2008-2015.

Co-organizer and Program Committee, Artificial Intelligence in ICTD Workshop, 2007.

Co-organizer of a conference on Knowledge Systems: information, technology and Agriculture, Ithaca, Cornell University, September 30 - October 3 2007.