Umang Bhatt

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umangsbhatt.github.io

Education

2019 – 2023 **University of Cambridge**, Cambridge, England, UK
Doctor of Philosophy in Machine Learning
Supervisor: Adrian Weller

2017 – 2019 **Carnegie Mellon University**, Pittsburgh, PA, USA
Masters of Science in Electrical and Computer Engineering
Advisor: José Moura

2015 – 2019 **Carnegie Mellon University**, Pittsburgh, PA, USA
Bachelors of Science in Electrical and Computer Engineering

Courses Machine Learning (PhD), Advances in AI for Social Good (PhD), Network Science (PhD), Pattern Recognition Theory (PhD), Math for ML I & II (MS), Practical Data Science

Publications

Conference Papers

Umang Bhatt, Alice Xiang, Shubham Sharma, Adrian Weller, Ankur Taly, Yunhan Jia, Joydeep Ghosh, Ruchir Puri, José Moura, & Peter Eckersley. Explainable Machine Learning in Deployment. ACM Conference on Fairness, Accountability, and Transparency (FAT*), 2020. Barcelona, Spain.

Botty Dimanov, **Umang Bhatt**, Mateja Jamnik, & Adrian Weller. You Shouldn't Trust Me: Learning Models Which Conceal Unfairness From Multiple Explanation Methods. European Conference on Artificial Intelligence (ECAI) 2020. Santiago de Compostela, Spain.

Aaron Roth, Samantha Reig, **Umang Bhatt**, Johnathan Schulgach, Tamara Amin, Afsaneh Doryab, Fei Fang, & Manuela Veloso. A Robot's Expressive Language Affects Human Strategy and Perceptions in a Competitive Game. IEEE International Conference on Robot and Human Interactive Communication (IEEE-ROMAN) 2019. New Delhi, India.

Umang Bhatt, Pradeep Ravikumar, & José Moura. Building Human-Machine Trust via Interpretability. AAAI 2019 Extended Abstract. Honolulu, HI.

Umang Bhatt, Edgar Xi, Shouvik Mani, & Zico Kolter. Intelligent Pothole Detection and Road Condition Assessment. Bloomberg Data for Good Exchange 2017. New York, NY.

Select Workshop Papers

Umang Bhatt, Brian Davis, & José Moura. Diagnostic Model Explanations: A Medical Narrative. AAAI 2019 Spring Symposium on Interpretable AI for Well-being. Stanford, CA. **(Best Paper Award)**

Brian Davis*, **Umang Bhatt***, Kartikeya Bhardwaj*, Radu Marculescu, & José Moura. NIF: A Framework for Quantifying Neural Information Flow in Deep Networks. AAAI 2019 Workshop on Network Interpretability. Honolulu, HI.

Presentations

2019 Talk at the All Partners Meeting for the Partnership on AI. September 2019. London, UK.

2019 Talk at the AAAI Spring Symposium on Interpretable AI. March 2019. Stanford, CA.

2018 Invited Talk and Moderator at AI LA's AI Ethics Symposium. October 2018. Pasadena, CA.

2018 Talk at the AAAI Spring Symposium on AI, Society, and Ethics. March 2018. Stanford, CA.

2017 Talk on *Mobility, Training, and Cities* at Bloomberg's D4GX. October 2017. New York, NY.

2017 Invited Case Study at University of Chicago's DSSG. September 2017. Chicago, IL.

Professional Experience

2019 – now **Partnership on AI**, *Research Fellow*, San Francisco, CA.
Exploring how to deploy explainable machine learning in industry

2019 – now **Leverhulme Center for the Future of Intelligence**, *Student Fellow*, Cambridge, UK.
Justifying the need for trust and transparency in AI

2017 – 2018 **Percepsense**, *Co-Founder*, Pittsburgh, PA.
Built products to harvest vehicular telematics data - pipeline now used by Honda Motors

2018 – 2018 **Microsoft**, *Program Management Intern*, Redmond, WA.
Project: explainable conversational agents for technical hardware documentation

2017 – 2017 **Groupon**, *Product Management Intern*, Chicago, IL.
Project: personalized and targeted pricing algorithms to drive purchase frequency

Teaching Experience

2017 – 2019 **Carnegie Mellon University**, *Teaching Assistant*, Pittsburgh, PA.

S19 18-661 (Machine Learning for Engineers - Masters) taught by Gauri Joshi

F18 10-701 (Machine Learning - PhD) taught by Ziv Bar-Joseph and Pradeep Ravikumar

S18 15-388/15-688 (Practical Data Science) taught by Zico Kolter

F17 15-122 (Principles of Imperative Computation) taught by Illiano Cervesato

S17 15-110 (Principles of Computing) taught by Margret Reid-Miller

Service

2019 **NeurIPS**, *Reviewer*.

2019 **ICLR Workshop on Debugging Machine Learning Models**, *Program Committee*.

2019 **AAAI/ACM Conference on AI, Ethics and Society**, *Student Programs Committee*.

2017 – 2019 **NavTalent**, *Campus Director*, San Francisco, CA.
Connected top-tier engineers with high-growth, impact-driven startups

2011 – now **BAPS Children's Activities**, *National Development Committee Member*, USA.
Plan, oversee, and speak at nation-wide conventions and weekly assemblies for over 5,000 Hindu children ages 6-14 with the team of fifteen other volunteers

Skills

Python, Java, C, C#, R, Javascript, Tensorflow, PyTorch, Matlab, HTML/CSS