Saumik Narayanan

Contact Information

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Research Statement

My research is in the area of AI-Assisted Decision Making. I am developing more powerful human-like behavior models and leveraging these models to improve joint human-AI team outcomes. I then evaluate these models using human subject experiments to better understand the interactions between humans and AI in real-world domains such as chess, organ transplants, and transit allocation.

Education

2020 - Current | **Washington University**, St. Louis, MO
PhD in Computer Science
Advisor: Dr. Chien-Ju Ho

2020 - 2022 | **Washington University**, St. Louis, MO
MS in Computer Science

2016 - 2019 | **University of Minnesota**, Minneapolis, MN
BS in Computer Science, *magna cum laude*
Thesis: "Modeling Network Formation in an Online Health Community"
Advisor: Dr. Svetlana Yarosh

Research Experience

2021 - Current | **Washington University**, St. Louis, MO
PhD Student

Summer 2022 | **Microsoft Research**, New York, NY
Research Intern

2019 - 2020 | **Smart Information Flow Technologies**, Minneapolis, MN
Associate Researcher

Jul - Dec 2019 | **Smart Information Flow Technologies**, Minneapolis, MN
Research Intern

2016 - 2019 | **GroupLens Research**, University of Minnesota
Student Researcher

Summer 2018 | **Civic Data Science REU**, Georgia Tech
Student Researcher

Publications

* denotes equal/alphabetical authorship

Saumik Narayanan, Kassa Korley, Chien-Ju Ho, Siddartha Sen. Improving the Strength of Human-Like Models in Chess. *Under Review*.

Guanghui Yu, Wei Tang, **Saumik Narayanan**, Chien-Ju Ho. Encoding Human Behavior in Information Design through Deep Learning. *NeurIPS 2023*.

Saumik Narayanan, Guanghui Yu, Chien-Ju Ho, Ming Yin. How does Value Similarity affect Human Reliance in AI-Assisted Ethical Decision Making?. *AIES 2023*.

Saumik Narayanan, Guanghui Yu, Wei Tang, Chien-Ju Ho, Ming Yin. How Does Predictive Information Affect Human Ethical Preferences?. *AIES 2022*.

Zachary Levonian, Marco Dow*, Drew Richard Erikson*, Sourijit Ghosh*, Hannah Miller Hillberg*, **Saumik Narayanan***, Loren Terveen, Svetlana Yarosh. Patterns of Patient and Caregiver Mutual Support Connections in an Online Health Community. *CSCW 2020*.

Zachary Levonian, Drew Richard Erikson*, Wenqi Luo*, **Saumik Narayanan***, Sabirat Rubya*, Prateek Vachher*, Loren Terveen, and Svetlana Yarosh. 2020. Bridging Qualitative and Quantitative Methods for User Modeling: Tracing Cancer Patient Behavior in an Online Health Community. *ICWSM 2020* .

Haiwei Ma, C. Estelle Smith, Lu He, **Saumik Narayanan**, Robert A. Giaquinto, Roni Evans, Linda Hanson, and Svetlana Yarosh. 2017. Write for Life: Persisting in Online Health Communities through Expressive Writing and Social Support. *CSCW 2017*.

Workshops and Abstracts

* denotes equal/alphabetical authorship

Saumik Narayanan. Exploring the Effect of AI Assistance on Human Ethical Decisions. *AIES 2022*.

Saumik Narayanan, Kassa Korley, Chien-Ju Ho, Siddartha Sen. Improving the Strength of Human-Like Models in Chess. *NeurIPS 2022 Workshop on Human-In-The-Loop Learning*.

Nic Alton*, **Saumik Narayanan***, April Gadsby, Chris Le Dantec, Kari Watkins. Feasibility of Low-Cost Air Quality Sensors for Mobile Emissions Analysis. *CARTEEH 2019*

Talks

Augmenting Human Work with AI. *St. Mary's University 2022*

Mentoring

Zongzhe Xu. Evaluating Maia on Lichess tactics. (Spring 2022)

Herbert Zhou. Curriculum learning for Maia models. (Summer 2021)

Moises Daboin. Predicting human movetime usage in chess. (Summer 2021)

Awards

TRIADS Graduate Fellowship, Washington University (Spring 2024)

NSF REU Undergraduate Research Fellowship (Spring 2019)

NSF Civic Data Science REU (Summer 2018)

Undergrad Research Opportunities Program, University of Minnesota (Fall 2017)

Skills

Languages Python, Javascript, Lisp, R, Java, Matlab, C, C++
Tools Pandas, PyTorch, Tensorflow, Tableau, React, Flask, LaTeX