

# SAUMIK NARAYANAN

## CONTACT INFORMATION

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## RESEARCH STATEMENT

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I'm interested in the area of AI-Assisted Human Decision Making, and my work looks to answer the following research questions. (1) How do humans decision-makers interpret advice given by an AI-assistant, particularly in ethical decision-making domains? (2) How do we develop AI advice interfaces which lead to higher quality joint decisions? (3) Can we use AI to build educational tools which improve the decision-making ability of humans?

## EDUCATION

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2020 - CURRENT	<b>Washington University, St. Louis, MO</b> PhD in Computer Science Advisor: Dr. Chien-Ju Ho
2020 - 2022	<b>Washington University, St. Louis, MO</b> MS in Computer Science
2016 - 2019	<b>University of Minnesota, Minneapolis, MN</b> BS in Computer Science, <i>magna cum laude</i> Thesis: "Modeling Network Formation in an Online Health Community" Advisor: Dr. Svetlana Yarosh

## RESEARCH EXPERIENCE

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2021 - Current	<b>Washington University, St. Louis, MO</b> <i>PhD Student</i>
Summer 2022	<b>Microsoft Research, New York, NY</b> <i>Research Intern</i>
2019 - 2020	<b>Smart Information Flow Technologies, Minneapolis, MN</b> <i>Associate Researcher</i>
Jul - Dec 2019	<b>Smart Information Flow Technologies, Minneapolis, MN</b> <i>Research Intern</i>
2016 - 2019	<b>GroupLens Research, University of Minnesota</b> <i>Student Researcher</i>
Summer 2018	<b>Civic Data Science REU, Georgia Tech</b> <i>Student Researcher</i>

## PUBLICATIONS

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\* denotes equal/alphabetical authorship

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

**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

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\* 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

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

## MENTORING

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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

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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

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