

Ian René Solano-Kamaiko

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Research Interests

My research interests are in human-computer interaction (**HCI**), information and communication technologies for development (**ICTD**), and responsible artificial intelligence (**R/AI**). I work on designing, building, and evaluating sociotechnical systems that enable positive social transformation for underserved communities. My research focuses on intractable yet critical problems related to computing in high-stakes healthcare settings — particularly with respect to social determinants of health for community and home health workers.

Education

- 2022-present** **Ph.D. in Information Science** (minor in Computer Science)
Cornell Tech, New York, NY, USA
Committee: Dr. Nicola Dell (chair), Dr. Aditya Vashistha, Dr. Deborah Estrin
- 2020-2022** **M.S. in Computer Science**
New York University, New York, NY, USA
Thesis: Contextual Equity Tools: Technology Heuristics To Support Human Decision Making In STEM Admissions
Advisor: Dr. Julia Stoyanovich
- 2008-2012** **B.F.A. in Painting and Art History**
Pratt Institute, Brooklyn, NY, USA

Publications

- 2024** **Ian René Solano-Kamaiko**, Dibyendu Mishra, Nicola Dell, Aditya Vashistha.
“Explorable Explainable AI: Improving AI Understanding for Community Health Workers in India”. Proceedings of the *2024 ACM Conference on Human Factors in Computing Systems (CHI '24)*.
- 2023** Mona Sloane, **Ian René Solano-Kamaiko**, Jun Yuan, Aritra Dasgupta, and Julia Stoyanovich. “Better Transparency: Introducing Contextual Transparency for Automated Decision Systems”. *Nature Machine Intelligence*.

2022 Andrew Bell, **Ian René Solano-Kamaiko**, Oded Nov, and Julia Stoyanovich. “It’s Just Not That Simple: An Empirical Study of the Accuracy-Explainability Trade-off in ML for Public Policy”. Proceedings of the *2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT ‘22)*.

Research Experience

2022–Present **Graduate Research Assistant**
Cornell Tech, New York, NY, USA
Advised by Dr. Nicola Dell and Dr. Aditya Vashistha

2023–Present **Visiting Research Scholar**

2021–2023 **Graduate Research Fellow**
Center for Responsible AI at NYU, Brooklyn, New York, USA
<https://airesponsibly.com>
Advised by Dr. Julia Stoyanovich

2021–2022 **Graduate Research Assistant**
New York University, New York, NY, USA
Advised by Dr. Julia Stoyanovich and Dr. Oded Nov

Fellowships & Awards

2023–2024 **Digital Life Initiative (DLI) Doctoral Fellowship**

2022 **Fellowships at Auschwitz for the Study of Professional Ethics (FASPE)**

Invited Talks

2024 **Cornell Center for Health Equity Symposium**
Cornell Center for Health Equity

2024 **Digital Life Seminar**
Digital Life Initiative at Cornell Tech

2022 **Data Science Education, Physics, and Ethics**
The Data Science Education Community of Practice (DSECOP)

2022 **AI Documentation Expert Summit**
Data Nutrition Project

Teaching

2022 **Teaching Assistant**, INFO 6410 / CS 5682: HCI and Design
Cornell Tech, New York, NY, USA
Dr. Nicola Dell and Dr. Thijs Roumen

2021 **Lead Teaching Assistant**, CS-GY 6083: Principles of Database Systems
New York University, New York, NY, USA
Dr. Julia Stoyanovich

Service

2024 Clinic to End Tech Abuse (CETA), Volunteer

2024 ACM CHI, Reviewer

2022-2024 NYU Applied Research Innovations in Science and Engineering (ARISE),
Selection Committee Member

2023 Cornell Specialization Project (iMPACT), Team Advisor

2022-2023 Cornell Student-Applicant Reading Program (SARP), Reviewer

Industry Experience

2019-2020 **Software Engineer**
Opentrons, Brooklyn, NY, USA
<https://opentrons.com>

I worked as a member of the Platform team building and managing our open-source software. We focused on developer experience, interoperability, and cloud infrastructure. I worked on our public APIs built using Python with FastAPI and Pytest. Additionally, I supported efforts on our desktop and web applications using technologies such as Electron, Node.js, React, Flow.js, and Jest.

2017-2019

Lead Software Engineer

Clark, New York, NY, USA

<https://hiclark.com>

As a member of the engineering team I helped establish our technical direction, lead/participated in research initiatives, onboarded new hires, and mentored junior members. Clark's APIs were built using Ruby on Rails based on the JSON API spec and tested using Rspec. Our frontend clients were built using React, Redux, Styled-Components, Flow.js, Jest/Enzyme, and Node.js.

2017

Product Engineer

Mic, New York, NY, USA

<https://mic.com>

I was part of the team responsible for the Mic.com web application rebuild. Mic.com was rebuilt using server-side rendered React, Redux, GraphQL, Flow.js, Chai/Enzyme, Node.js, and Kubernetes for deployment orchestration.

2014-2017

Product Engineer

Made by Many, New York, NY, USA

<https://madebymany.com>

I worked as part of an interdisciplinary team researching, prototyping, and building complex web and mobile applications. I built a mobile application using React Native and web applications using technologies such as React, Redux, Elixir/Phoenix, and Ruby/Ruby on Rails.

2013-2014

Technologist

Big Spaceship, Brooklyn, NY, USA

<https://bigspaceship.com>

I collaborated with designers, strategists, data analysts, and technologists to create compelling campaign websites and web applications.

Skills

Languages

JavaScript (ES6+/Node), Typescript, Ruby, Python, Elixir, Haskell, C++, HTML, CSS, Bash, SQL, Spanish

Libraries	React, React Native, Redux, GraphQL, Electron, Ruby on Rails, Rspec, Jest, Cypress, FastAPI, Pandas, NumPy, Scikit-learn, SHAP, AI Fairness 360, Fairlearn, Pytest, Phoenix, Next.js, Styled-Components
Databases	PostgreSQL, MySQL, MongoDB, Redis
Research	User interviews, survey design, ethnographic observations, affinity mapping, journey mapping, service blueprints, personas, A/B testing, prototyping