Ricardo Saavedra – HCI researcher & software designer

Interfaces for human augmentation: data visualization, machine learning interpretability, data science and algorithm design

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Professional Experience

2019-Present

Metagov – A governance layer for the Internet

Berkman Klein center, Harvard

Head of Design, CO-founder

- Leading year-long research that investigates the future of governance in online communities (e.g. games, social networks, blockchains) in partnership with social scientists, lawyers, mathematicians, and data science researchers.
- Co-wrote the Modular Politics paper, which has been viewed by almost 10k readers in the first two months.
- Leading multi-disciplinary team (HCI researchers, UI/UX, computer scientists) to translate theoretical research into functional software requirements through user research and rapid prototyping.
- Overseeing collaboration with partners to develop software solutions based on real governance problems;
 currently working with <u>Seed</u> to deploy Metagov to 1M users in 2021.
- Co-organizing workshops and conferences in partnership with Harvard Law School aimed at fostering
 governance innovation across the web. Participants include policymakers, technology leaders, digital activists,
 and leading academics.

2019-2020

XaiPient – Machine learning interpretability platform (XAI)

Princeton, NJ

Design Lead

- Led multi-disciplinary team (ML engineers, full-stack, UX research) on the development of various data visualization applications. The research focused on increasing user comprehension and trust in ML systems across a wide range of applications (e.g. autonomous vehicles, human+ML systems).
- Partnered with computational linguistic researchers to develop new methods for ML interpretability based on natural language (conversational XAI). User validation indicated a more complex mapping of the model's inner working.
- Led the design of the first data visualization library dedicated to XAI, which enabled developers to easily deploy explainable AI modules into various software pipelines: from model debugging to end-user explanations.
- Collaborated with researchers working in technology ethics to develop new strategies to increase fairness in
 machine learning systems. The work consisted of various workshops, followed by technical investigations (data
 science, data visualization) and user testing.

2019-2019

Strelka Media Institute – Think Tank for architecture and artificial intelligence

Moscow, Russia

Research Fellow

- Worked in collaboration with leading professors from MIT, UCSD, Harvard, and Google (AMI) on long-term
 research focused on: Al governance, technology ethics, Al at an urban scale (smart city infrastructure), and
 computer modeling (simulations). The output consisted of presentations, reports, short documentaries, and
 various software prototypes.
- Worked closely with practitioners working on robotics, real-time maps, AI research, and AV (autonomous vehicle)
 to develop <u>Sybl</u>: a new simulation paradigm that enables computer modeling applications to be linked together,
 creating a more accurate and interdependent multi-stakeholder environment.

- Led the research and development of SOL: a novel approach to visualize city activity through sound, machine learning, and real-time visualizations.
- Prototyped NAM: a novel visualization method to increase transparency in ML models through immersive 3D data visualization (VR).

2018-2019

Pando Protocol – Rethinking the infrastructure of intellectual propriety on the web

Berlin

HCI researcher

- Collaborated with economists, artists, and blockchain researchers to develop new models for IP management.
 The research focused on designing new governance mechanisms for creative media (software, books) and more refined licensing agreements.
- Co-wrote the <u>Pando white paper</u>, and developed various investor materials, leading to the project acquisition by <u>Aragon</u>
- Worked closely with the open-source community to translate user needs into interfaces for distributed governance, content publishing, licensing, and re-use by platform users.

2017-2018

Status.im – Ethereum mobile browser and cryptographically secured messenger

Remote

Design Research Lead

- Led a team of visual designers, UX researchers, and cryptographers to develop and test design solutions to address major usability problems with blockchain technologies and the decentralized web.
- Oversaw ethnographic studies in Asia, Europe, and South America to better understand the culture and sociopolitical influence in user adoption of Blockchain. Insights led to new financial products and mobile app redesign.
- Collaborated with leading Ethereum developers to propose common design patterns to be adopted by the Ethereum community.
- Researched and prototyped proof of concept of visual programming language for smart contracts, enabling anyone to easily set up self-executing programs on the blockchain.

2012-2015

Samsung UX Mobile Lab (R&D)

San Francisco, CA

Design Lead & Strategy

- Led design research and helped drive multiple interactive products successfully to market by interfacing with different teams; translating proof of concepts into successful product launch (from user research and engineering to executive teams).
- Oversaw research and development of the first <u>AI wearable camera</u>, working closely with engineering teams to
 overcome many technical challenges, following close collaboration with HQ to bring the concept to market.
- Translated strategic foresight and user insights into future technology scenarios (concept videos, fantasy UI, and high-fidelity prototypes) to carry the vision forward across different teams.
- Led Accessibility design strategy across Samsung mobile products. The work focused on creating new features
 that addressed the needs of users with motor, cognitive, and visual impairments.
- Led sound and ambient UI design for <u>Galaxy View</u>; contributed to UI and motion design of the <u>Gear S</u>.
- Prototyped and validated various mobile <u>OS concepts</u> & features that addressed major usability issues regarding TouchWiz's interaction model.
- Worked closely with <u>SmartThings</u> executives to re-design home automation strategy and mobile UX.

Globo. com – Largest media group in Latin America

Brazil

Senior Interaction Designer

- Worked alongside developers, PMs and visual designers on various award-winning mobile apps (news, sports, video-on-demand).
- Oversaw the largest ethnographic study about online habits ever conducted on the Brazilian territory, gathering real insights about thousands of users to inspire the next iteration of web products.
- Worked to bring globo.tv successfully to the market (interaction design and strategy), reaching an audience of 4
 million users in its first 6 months.
- Helped to establish the design process and culture across a team of 25 designers. The work consisted of
 defining best practices in usability, information architecture, and software design; organizing internal
 symposiums, workshops, and curating talks with design experts around the world.

Other positions

2011-2012

Kaus Media, Brazil

Senior Interaction Designer

2008-2010

Fumarte, Brazil

Interaction Designer and User Researcher

Education

2019-2020

Mills College, Oakland, CA

MFA in Sound Composition and Music Synthesis

 Researched and developed novel approaches for music expression, gesture recognizability, and reactive sound systems. The research explored the intersection of cognitive psychology, HCl and generative algorithms (ML) to expand the range of possibilities of human expression (interfaces for human-augmentation).

2011-2012

Pontifical Catholic University of Rio, Brazil

MA in Interaction Design and Information Architecture

2004-2008

University of Rio de Janeiro, Brazil

BA in Media Studies