

SAHITI SARVA

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 Github

 LinkedIn

EDUCATION

M.Sc. Hons. Engineering & Policy Analysis (GPA: 8.32/10)


Delft University of Technology


 09/19 - 08/21

 Delft, Netherlands

B.Tech. Civil Engineering (GPA: 8/10)

National Institute of Technology, Tiruchirappalli


 06/12 - 06/16

 Tiruchirappalli, India

WORK EXPERIENCE

Research Assistant

HERoS, Resilience Lab, TU Delft

 04/20 - 08/21

 Delft, Netherlands

Health Emergency Response in Interconnected Systems (HERoS) is a Horizon 2020 project funded by the European Commission to support decision-makers in managing the Coronavirus outbreak ([link](#)).

- Contributed to building a large-scale, open-data agent-based model that simulates the spread of COVID-19 in a city and estimates the impact of Non-Pharmaceutical Interventions at a neighborhood level ([link](#)).
- Worked extensively on Time Use Survey data to generate day-to-day activity schedules for all citizens in a city.
- Identified robust policies, & prepared recommendations for city-level government in The Hague, Netherlands.
- Presented findings at the 2021 International Conference for Computational Social Science ([link](#)).

Student Consultant

United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA)

 09/20 - 01/21

 The Hague, Netherlands

UNOCHA is a United Nations body established to strengthen international response to complex emergencies and natural disasters.

- Worked for the Centre for Humanitarian Data to understand risk of data privacy loss when combining humanitarian datasets with other open source data (Mosaic Effect) ([link](#)).
- Interacted with stakeholders to understand contextual data sensitivity & existing statistical disclosure control mechanisms.
- Built **linear regression model** to estimate likelihood of data privacy loss when combining open source datasets.
- Designed a workflow to facilitate continual estimation of the likelihood of Mosaic Effect which informed a report on Operational Guidance on Data Responsibility in the Humanitarian Sector by the Inter-Agency Standing Committee.

Student Consultant

Noria Sustainable Innovators

 09/20 - 11/20


 Delft, Netherlands

Noria develops sustainable methods & techniques to remove plastic waste from the water close to source ([link](#)).

- Designed a **serious game** to facilitate discussion & collaboration among Dutch policymakers to reduce plastic waste in water bodies.
- Analysed the system of plastic pollution in The Netherlands & identified potential areas for collaborative policies.
- Curated an online, cooperative, multi-player, simultaneous action board game for policymakers.
- Facilitated the game & conducted a debrief to discuss the benefits of policy cooperation in reducing plastic in the ocean.

Business Intelligence (BI) & Analytics Consultant

Thorogood Associates

 06/16 - 06/19

 Bangalore, India

Thorogood Associates is a UK based boutique consulting firm ([link](#)).

- Developed BI system to identify sustainable packaging materials to replace existing ones assisting the CPG firm to reduce its carbon footprint to reach **UN Development Goals** of responsible production & consumption.
- Led a team of 5 from the India unit in optimizing a BI system hosting global recipes & finished goods data, improving system maintenance efficiency by 40%.
- Created a fleet of dashboards for a CPG firm that allowed them to identify, track and reduce revenue losses in the system.
- Interacted with stakeholders to design metrics to analyse Portfolio Complexity for a CPG conglomerate. Identified low margin, slow-moving consumer goods that enabled 400+ R&D Managers to save €100M.

Freelance Data Analyst

Akshara Foundation

Akshara Foundation is an Indian Public Charitable Trust dedicated to ensuring primary education for underprivileged children ([link](#)).

📅 09/18 - 03/19

📍 Bangalore, India

- Created 'The Blackboard' - a series of **visual analysis dashboards** that evaluate findings from foundations' mathematics contest conducted pan India for 250,000 students. It allows for evaluation of existing material & pedagogical techniques.

RELEVANT ACADEMIC WORK

Water justice

- Completed a Master thesis project focused on evaluating stability & fairness of efficient water resource allocations across multiple sectors sharing a transboundary river basin ([link](#)).
- Assuming benefit-sharing between different sectors, the research uses utilitarianism, egalitarianism & prioritarianism to evaluate fairness and, cooperative & non-cooperative game theory to evaluate stability ([link](#)).

Climate change & disaster risk management

- Identified the implications of flood risk reduction & resilience policies for all involved stakeholders along the Rhine river delta in The Netherlands using **decision making under deep uncertainty** principles.
- Constructed stable strategies for Canadian First Nations to end drinking water advisories using **cooperative game theory**.
- Built a **discrete event simulation** model to analyse flood relief distribution system in severely impacted areas of Bangladesh.
- Employed **system dynamics** to analyse bi-directional impact between climate change & global food consumption.
- Simulated a fire evacuation using **agent based modelling** to identify effective evacuation communication strategies.
- Co-authored a journalistic piece about the rise of populism & its impact on climate change debates in global media.

Gender & society

- Used **Bayesian statistics** & **regression** techniques to analyse global female labour force participation rate & its correlation with socio-economic indicators.
- Built a **system dynamics** model to understand the impact of female empowerment policies on reducing HIV & TB spread in Karnataka, India.
- Co-authored a popular scientific essay on the rise & spread of disinformation campaigns in India.

SKILLS & LANGUAGES

Programming & Visualization

Python Javascript (D3.js) HTML CSS C++ SQL PowerBI R Tableau

Simulation & Modelling Formalisms

Agent Based Modelling Discrete Event Simulation System Dynamics

Simulation & Modelling Tools

GAMA Vensim Simio

Others

Microsoft Excel Microsoft Word

Languages

English Telugu (native speaker) Hindi