Empowering and Enhancing Workers Through Building A Community-Centered Gig Economy

Haiyi Zhu, Carnegie Melon University; Zhiwei Steven Wu, Carnegie Melon University; Min Kyung Lee, U of Texas at Austin; Yanhua Li, Worcester Polytechnic Institute; Zhi-Li Zhang, University of Minnesota

Award Type: SCC-IRG Track 1

Challenges:

The gig economy platforms leverage modern technologies and take advantage of data and knowledge about users and workers to intelligently match, schedule and manage gig workers to meet users' needs. However, while these platforms provide convenience to users in the community, evidence suggests that worker wellbeing on the gig economy platforms have become significant societal problems. Most gig workers lack financial stability, lack access to employer-based benefits, have low earning efficiency and lack autonomy.

Project Vision:

- Developing a human-centered and data-driven decision-assistance environment to help gig workers make "smart" decisions in navigating and selecting gigs, and provide a macrolevel perspective for policymakers to balance their diverse set of objectives and constraints.

- Deploying and evaluating whether and how the above environment addresses the fundamental problems of worker wellbeing in the gig economy.
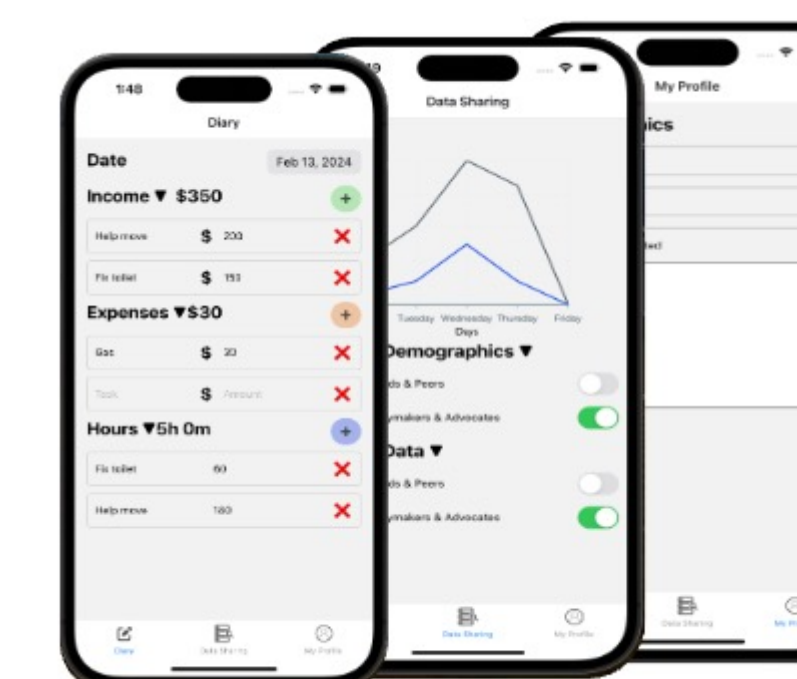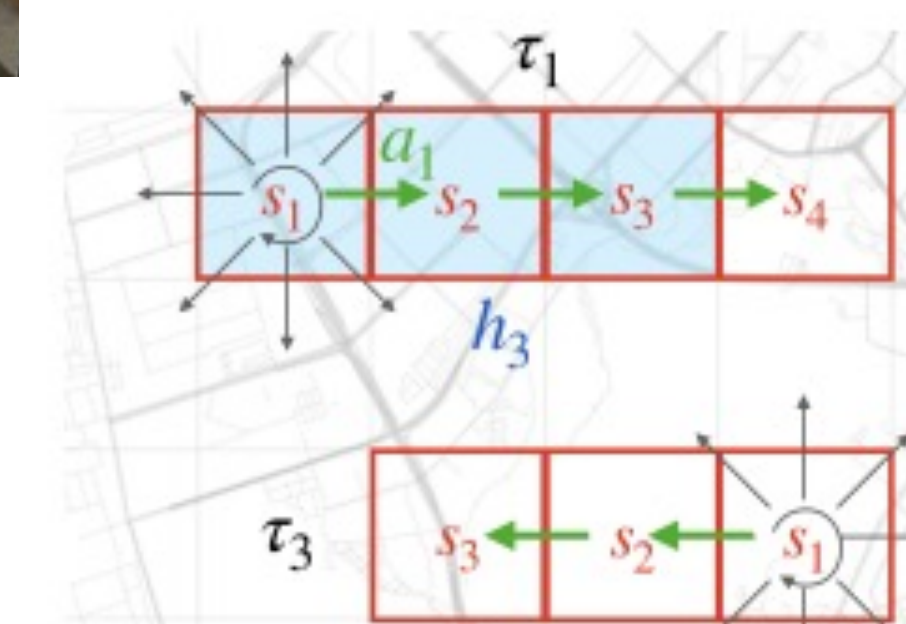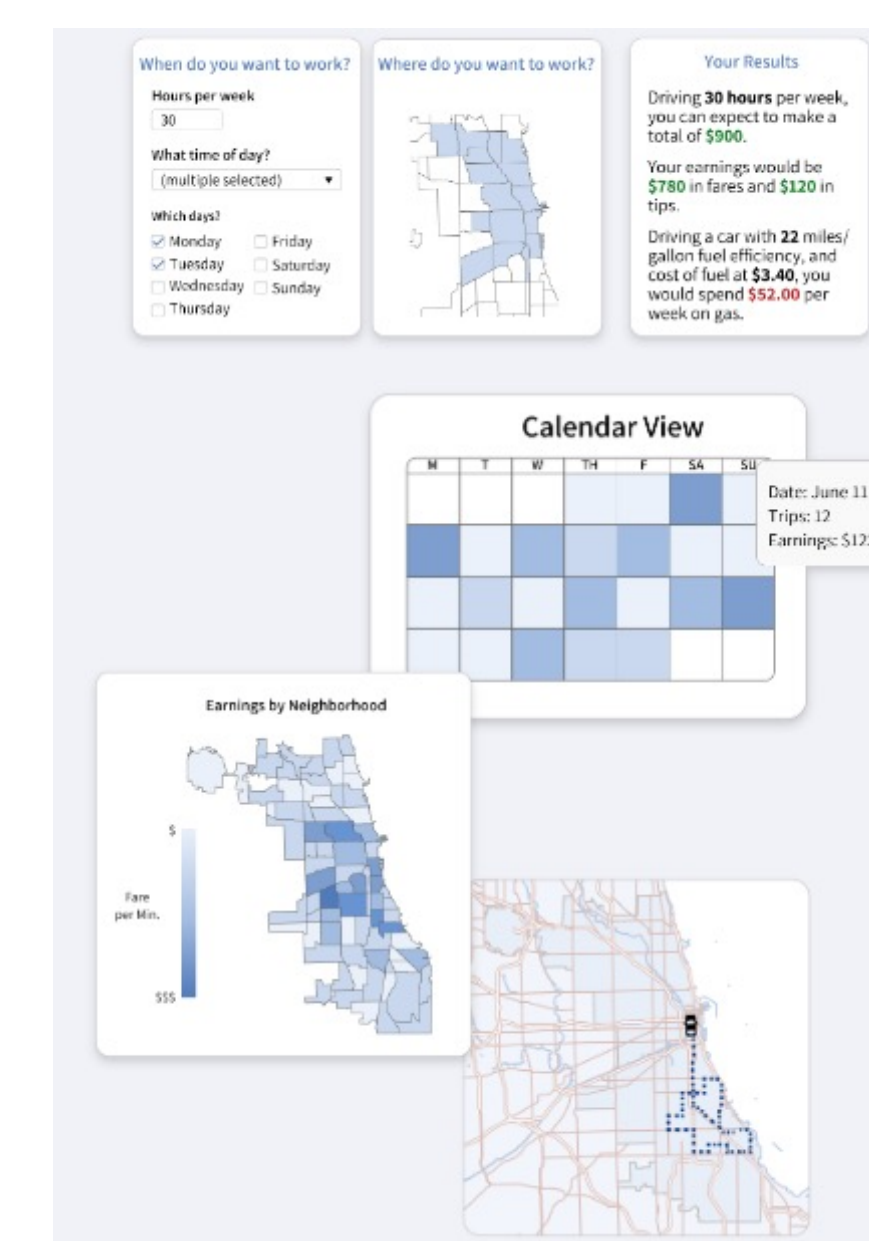
Project Activities:

Research Thrust 1: Understanding Problems. We conducted a series of studies using various research methods to understand the concerns, challenges, and considerations of gig workers and community stakeholders.

Research Thrust 2: Developing Solutions. Building upon the findings from Research Thrust 1, we proposed and prototyped a wide range of technologies, including:

- Working-facing decision support tools and training tools

- Policymaker-facing tools

- Data Sharing Portals

Outputs:

- 45 students worked on the project to gain valuable experiences

- 71 papers published at various journal and conferences

- Worked with community stakeholders, including Allegheny County Department of Human Services, City of Pittsburgh, Department of Mobility and Infrastructure (DOMI), United Way of Southwestern Pennsylvania

Next step:

We will continue to implement the data sharing system that allows workers to contribute a variety of data related to gigs and enable policymakers to make data-driven decisions.