

## **Thesis Project Portfolio**

### **Revolutionizing Food Delivery Services with Home Cooked Meals**

(Technical Report)

### **Fluid Workers in the Gig Economy: Does a New Class of Employee Need a New Classification?**

(STS Research Paper)

An Undergraduate Thesis

Presented to the Faculty of the School of Engineering and Applied Science  
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In Fulfillment of the Requirements for the Degree  
Bachelor of Science, School of Engineering

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## **Sociotechnical Synthesis**

My STS and technical projects both focused on and utilized the gig economy. My technical project created a platform meant to be used by gig workers to attribute to the overall gig economy. It did so by giving workers a feasible option to sell their own home-cooked meals on our platform. Allowing them to easily supplement their income. My STS project focused on the proper way to classify the gig workers who use platforms similar to the one we implemented for my technical project.

Food delivery services take advantage of consumers' desire for convenience, allowing them to stay at home and not worry about cooking for themselves. Consumers have increasingly ordered food from delivery services and avoided preparing food from scratch, even though home-cooked meals provide a more nutritious and well-rounded diet. My technical project developed a food delivery service, called HomeEats, that is a platform specifically for delivering home-cooked meals. It allows anyone to register as a cook and post a meal to be purchased by a customer. A customer is able to order a meal from the relative cook, and the cook will cook the meal and deliver the home-cooked meal to the customer's door.

Workers in the gig economy are often taken advantage of and denied the rights that traditional employees receive. My STS research focused on analyzing the relationship between gig workers and their relative employers, and determining the correct way to classify the worker. The goal of the research was to come up with a means to fairly classify the worker relative to both the worker and the firm that employs them. What I discovered was that the best way to classify these workers were on a fluid basis relative to their own relationship with the firm. However, I noted that that is not feasible in our current environment. Thus, a more reasonable approach was offered. Which was to make it required for such firms to offer a route to

employment to the workers that meet the requirements to be classified as an employee. The results showed that this will greatly increase welfare for workers and revenues for firms.

My STS project was critiquing the operations of a class of platforms that the platform that I built for my technical project would fall into. This duality allowed me to understand both sides of the problem. Regarding my STS project I was able to participate as one of the parties in discussion when building my technical project. This created a new level of empathy and understanding that I would otherwise not have when evaluating these platforms for my STS project. The combination of my technical and STS project allowed me to test the applicability of the ethical guideline I was suggesting in my STS project. The point of my STS project was how to ethically classify gig workers regarding both the firms and the workers. And my technical project gave me empathy to the firms and to allow me to be certain that the guideline suggested from my STS project would be applicable. Both perspectives showed that it is in the best interest of the firm to treat the workers ethically.