

Thesis Project Portfolio

**A Systems Approach to Improving the Spectator Experience at Collegiate
Football Games**

(Technical Report)

The Effect of Online Tools on Residential Real Estate

(STS Research Paper)

An Undergraduate Thesis

Presented to the Faculty of the School of Engineering and Applied Science

University of Virginia • Charlottesville, Virginia

In Fulfillment of the Requirements for the Degree

Bachelor of Science, School of Engineering

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Spring, 2023

Department of Systems Engineering

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Sociotechnical Synthesis

The technical report will look to improve the experience for UVA football game spectators by taking a three-pronged approach. Since the successful 2019 season, UVA has seen a rapid decline in both football game attendance and fan enthusiasm. The team will look for improvements associated with traffic, the in-game experience, and the football team website by conducting thorough analyses and gameday observations. Upon the project's completion, the team hopes to create a better experience for UVA football spectators to greaten football game attendance and fan enthusiasm.

The STS report will look to investigate the effects and futures of online residential real estate tools like Zillow. This STS report is unrelated to the technical report. Real estate is a major driver of the U.S. economy, and fluctuations in the housing market can have massive repercussions on citizens. I question how new online tools have changed the residential real estate market and analyze any potential consequences of using such tools through the Social Construction of Technology framework. Upon the project's completion, I hope to create a greater understanding of online residential real estate tools to aid future consumer decision-making during the homebuying process.