

Thesis Portfolio

Satori: Open-source Course Management System
(Technical Report)

Silicon Valley: A Corrupt Utopia
(STS Research Paper)

An Undergraduate Thesis

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Bachelor of Science, School of Engineering

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Sociotechnical Synthesis

A haven for software engineers and entrepreneurs, the portion of California stretching from San Jose to San Francisco is fondly known as Silicon Valley. My thesis discusses the origins of Silicon Valley, and how the societal structure that arose in the Valley has led to the successes and failures it is home to. My thesis focuses on the ethical decision-making frameworks often seen in the Valley, why the use of those frameworks often leads to unethical decisions, and why change is so important. My prospectus studies one of the most spectacular Silicon Valley failures in recent history, the medical device company Theranos. Focusing on Theranos, my prospectus uses various STS frameworks to analyze how Elizabeth Holmes, the founder of Theranos, was so easily able to create a billion-dollar private company that turned out to be no more than a Ponzi scheme.

My thesis and prospectus relate to my capstone project in a very loose sense, in that they are all related to software engineering. My capstone project was creating an online course management system for professors that allows for assignment submission and grading, an office hours queue, and support requests. The general theme of my thesis and prospectus was developing products for society in an ethically equitable way. The lessons learned from this were put into practice while my group and I were working on developing our capstone, as they should be for all software development.