

An Analysis of Recommendation Methods in Movie Recommendations  
(Technical Report)

Face Recognition: A Struggle between Security, Convenience, Privacy, and  
Equity  
(STS Research Paper)

An Undergraduate Thesis Portfolio  
Presented to the Faculty of the  
School of Engineering and Applied Science  
In Partial Fulfillment of the Requirements for the Degree  
Bachelor of Science in Computer Science

by

Nikita Semichev

May 14, 2021

## Preface

How to gain trust in modern AI and Machine Learning technologies that raise questions from the general public? It is necessary to demonstrate how the process works and why it works the way it does.

State-of-the-art methods for recommendation systems are constantly being developed and improved. Analyzing different implementations and testing them on real data provides insight into how those algorithms learn from the data and specific factors that determine what gets recommended. This project used a dataset of movies from MovieLens to compare different algorithms. It is important to understand how different recommendation algorithms work to determine what works best and what could be improved. In future studies, using different and diverse datasets, as well as other algorithms can further improve the understanding of generated recommendations.

In the U.S. since 2010, how have social groups competed to draw the line between necessary building security and invasive building security? Privacy is a major concern for many living in the U.S. and with modern technology it became much easier to compromise. Social groups have started using technologies and sophisticated algorithms that follow security protocols while also adhering to privacy concerns of the general public. Regulations are put in place to limit data storage for technology such as facial recognition and AI security companies promote and monitor ethical usage of their software. Facial recognition and similar modern technologies have many benefits, but should also be regulated to protect the rights of the people.

## **List of Contents**

1. Technical Report: An Analysis of Recommendation Methods in Movie Recommendations
2. Sociotechnical Research Paper: Face Recognition: A Struggle between Security, Convenience, Privacy, and Equity
3. Prospectus