

Analyzing the Creation of the March Madness Bracket with a Machine
Learning Approach
(Technical Report)

The Struggle Between the Scammer and Technology: An Evolving Balance
of Power
(Sociotechnical Research Paper)

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by

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Preface

How can machine learning systems improve safety and other performance criteria?

How can machine learning be used to predict the admission and seeding of the NCAA basketball tournament? Bracketology is the process of predicting and creating the March Madness tournament bracket, which is not well understood and complex. The March Madness bracket is selected by a committee of twelve members. To predict tournament bids and their respective seeds, I utilized Machine Learning techniques to create a model which analyzes a team's resume to determine its seed placement. Based on the model, any team looking to receive an at-large bid must evaluate the strength of their conference schedule (the last 16-20 games of their 30-game schedule) to make decisions about how difficult their non-conference schedule must be.

In the US, how do telecom companies, federal agencies and scammers compete to protect or subvert telecommunications security? Telecommunications scams have existed for decades, and unaware victims have lost \$8.8 billion dollars in just 2022 to these scams. User training cannot prevent all online scams, and law enforcement often cannot recover victims' losses. Because telecom companies and government agencies cannot thwart all scammers, users must learn how to protect themselves.