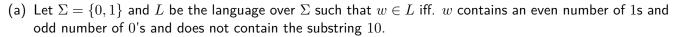
CSE 390z: Mathematics for Computation Workshop

QuickCheck: DFAs and NFAs (due Monday, December 2)

Please submit a response to the following questions on Gradescope. We do not grade on accuracy, so please submit your best attempt. You may either typeset your responses or hand-write them. Note that hand-written solutions must be legible to be graded.

We have created **this template** if you choose to typeset with Latex. **This guide** has specific information about scanning and uploading pdf files to Gradescope.

0. Constructing DFAs and NFAs



Give a DFA to accept strings in ${\cal L}.$

(b) Let $\Sigma=\{0,1,3,9\}$ and L be the language over Σ such that $w\in L$ iff. The string "311" is a substring of w.

Give an NFA to accept strings in L.

1. Video Solution

Watch this solution video after making an initial attempt. Then, answer the following questions.

- (a) What is one thing you took away from the video solution?
- (b) What topic from the quick check or lecture would you most like to review in workshop?
- (c) Optional: How did you like the Imposter Syndrome Workshop? Any feedback for future quarters?