

STA380 Project Proposal: Monte Carlo Simulation of a Hypothesis Test of Binomially Distributed Samples

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Project Topic

Monte Carlo Simulation of a Hypothesis Test of Binomially Distributed Samples [One-sample z-test for a binomial proportion]

Simulation vs. Dataset

We will using pure simulation

Project Detial

User Input(Shiny Components)

Reference

[Chang et al., 2025] [R Core Team, 2026] [Wickham et al., 2026]

References

Winston Chang, Joe Cheng, JJ Allaire, Carson Sievert, Barret Schloerke, Garrick Aden-Buie, Yihui Xie, Jeff Allen, Jonathan McPherson, Alan Dipert, and Barbara Borges. *shiny: Web Application Framework for R*, 2025. URL <https://CRAN.R-project.org/package=shiny>. R package version 1.12.1.

R Core Team. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria, 2026. URL <https://www.R-project.org/>.

Hadley Wickham, Winston Chang, Lionel Henry, Thomas Lin Pedersen, Kohske Takahashi, Claus Wilke, Kara Woo, Hiroaki Yutani, Dewey Dunnington, and Teun van den Brand. *ggplot2: Create Elegant Data Visualisations Using the Grammar of Graphics*, 2026. URL <https://CRAN.R-project.org/package=ggplot2>. R package.