## A real time, responsive Quantitative trading analysis Mobile App using R

Nilesh N. Shah<sup>1</sup>

1. Investygator Inc. \*Contact author: nilsha@yahoo.com

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Quantitative Trading is typically associated with Hedge Funds, high frequency trading firms/ "Quant shops", and knowledgeable investment professionals. The sophisticated individual investor now has access to several specialized software tools, assuming they know what they're looking for and how to interpret the results. That still leaves a gap for the common every day person who, while not armed with sophisticated knowledge, would still like to have sophisticated information available to help them make investment decisions.

We present an easily extensible/scalable Cross platform, real time, responsive, Quantitative trading analysis Mobile App using R as the primary backend compute engine. This App allows the user to ask investment questions and receive responses in simple English. The backend R engine runs quantitative algorithms to answer the questions. The Mobile App consists of a "Front End" User interface, implemented using the popular JQuery Mobile framework, and a backend server hosted on Amazon AWS, running R on a headless Linux server. The app utilizes several R modules (quantstrat, quantmod, sentiment, RMySQL) for data storage, retrieval and analysis, as well as custom algorithms. We also use FastRWeb, a Fast Interactive Web Framework in R. For real time ticker lookup, we use PHP/ Ajax. Data is delivered from the server to the App Front End user interface using JSONP, a popular Web Service data exchange format. This enables remote procedure calls to be made from the Web App to the server running R, and data returned back to the app using a JSONP callback function.

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