

New Tools & R Packages for Tidy Time Series Analysis

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Business Science

Applying Data Science to Business and Financial Analysis

About BizSci

OUR MISSION

To enable your team to unlock the full benefits of data science.

How do we do it? Using our *network of data science consultants*, we pull together the right team to get your custom projects done *on time, within budget,* and of the *highest quality.*



About BizSci

OUR MOTIVATION

*Data science, machine learning and artificial intelligence are the future, yet the majority of businesses are **not** fully utilizing data science.*

The **critical shortage of data scientists** makes building data science teams very difficult. Our services address this critical shortage by **building consulting teams as needed and scaling on-demand**. Using our **data scientist network**, we pair topical analytics specialists, data science experts, and data engineers as needed. Rather than focus on a single data science "unicorn", our approach is **team-based**, which elevates the collective output and is better suited for solving real-world problems! The end result is **data science collaboration**, which benefits all.



About BizSci

OUR VALUES



CUSTOMER

Never stop until the customer is 100% satisfied



COLLABORATION

Work as a team to accomplish exponentially more than the sum of the parts



CREATIVITY

Be adventurous, unafraid of challenges, constantly learning and ready to innovate



COMMUNITY

Give back in the form of tools that progress the data science community



Before we begin demos...

All Presentation Materials Here

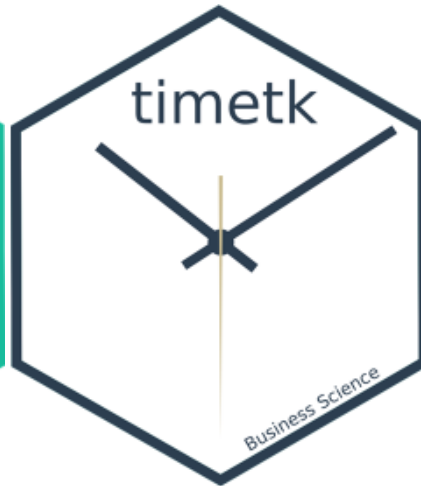


- github.com/business-science
- [/presentations/](#)
- [2017_09_19_R_UserGroup_Panama](#)



About BizSci

OUR R PACKAGES



{tidyquant}: Financial & Time Series Analysis

- ▶ Getting data from web
 - ▶ Yahoo! Finance, FRED Database, Quandl and more
- ▶ Tidy application of financial and time series functions
 - ▶ {xts}, {zoo}, {quantmod}, {TTR} and {PerformanceAnalytics}
- ▶ Graphing - Beautiful ggplot themes and financial geoms
- ▶ Working with portfolios
- ▶ Financial performance analysis and portfolio attribution metrics
- ▶ Base package for any analysis



{tidyquant}: Financial & Time Series Analysis

► DEMO



{timetk}: Toolkit for Time Series Analysis

- ▶ Coercing (converting) between time classes in R
 - ▶ Convert between {tbl}, {xts}, {zoo}, {ts}
- ▶ Time series machine learning



timetk: Toolkit for Time Series Analysis

► DEMO



sweep: Broom-Style Tidiers for forecast pkg

- ▶ Tidying the {forecast} package workflow.
- ▶ {broom} is to {stats} as {sweep} is to {forecast}
 - ▶ Forecast package works with {ts}
 - ▶ Tidyverse works with {tbl}



sweep: Broom-Style Tidiers for forecast pkg

► DEMO



{tibbletime}: time-aware tibbles

- ▶ This is the future of tidy time series analysis
- ▶ Sits on top of {tbl} as new class {tbl_time}
- ▶ Special time-based functions
 - ▶ `time_filter()`
 - ▶ `time_summarize()`
 - ▶ `as_period()`
 - ▶ `time_collapse()`
 - ▶ `tmap()`
 - ▶ More coming soon!!!

tibbletime

logo coming
soon



tibbletime: time-aware tibbles

► DEMO

tibbletime

logo coming
soon

