

Audit Data Analytics

Focus on risks efficiently and effectively

2019-11-15



Stewart Li, a qualified accountant, has extensive experience assisting organisations with strengthening

internal controls processes, initial public offerings and IFRS reporting standards. He has worked closely with a wide variety of clients in the manufacturing, service and public sectors across the region. He is passionate about utilizing Data Analytics to help clients manage the financial reporting challenges associated with a constantly changing business environment.

★ Stewart Li _{MCom|CA|ACCA}

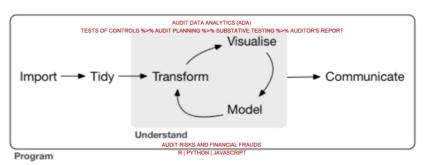
✓ stewardli8@msn.com

♦ https://raudit.netlify.com/

Clementi, Singapore

Accounting professionals tend to work under pressure so that they can cover as much ground as possible. However, tools at their disposal often have very limited power and are unable to optimistically fit their workflow. Furthermore, their work is prone to errors due to too many copy+paste and unreproduciblity.

In our view, **R** is a perfect tool to increases their productivity and conform to their workflow. Data analytics lifecycle described by <u>R4DS</u> (https://r4ds.had.co.nz/) sensibly matchs audit routines. This document is meant to demonstrate the usefulness of R in the field of audit via a specific use case.



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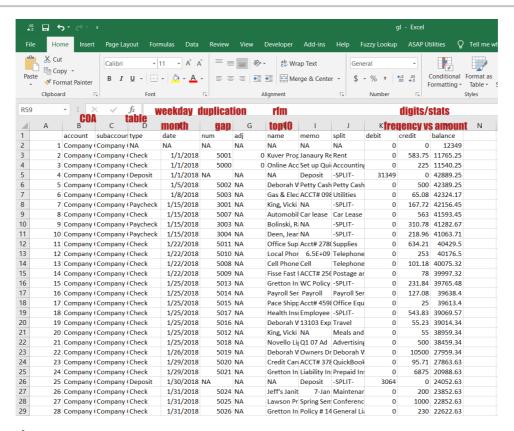
Our consulting will help you with:

Financial Planning & Analysis; Internal Audit; External Audit; Practices of SOX and FCPA; In-house Training;

Case study

This is an example of analyzing General Ledger with R. See <u>Github Repo (https://github.com/stewartli/au ditworkpaper)</u> for project details.

Data cleaning



Data munging

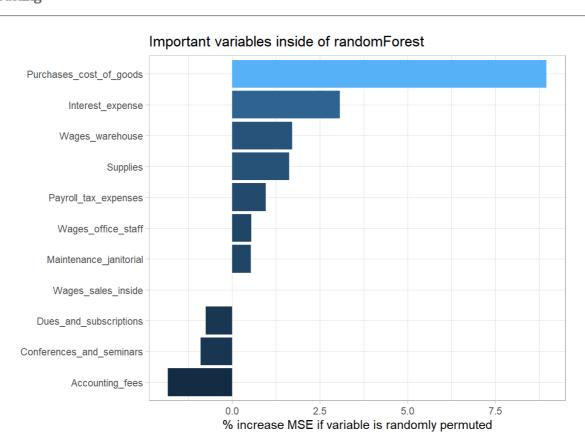
name	month	freq	credit	pct	cum_amt	cum_pct
Baker's Professional Lighting:Store #05	Feb	7	2,391.00	1.0000000	2,391.00	1.0000000
Baker's Professional Lighting:Store #10	May	7	2,038.00	0.1602393	2,038.00	0.1602393
Baker's Professional Lighting:Store #10	Dec	6	10,680.48	0.8397607	12,718.48	1.0000000
Baker's Professional Lighting:Store #15	Feb	10	1,885.00	0.5700030	1,885.00	0.5700030
Baker's Professional Lighting:Store #15	Dec	7	1,422.00	0.4299970	3,307.00	1.0000000
Baker's Professional Lighting:Store #20	Mar	8	1,872.00	1.0000000	1,872.00	1.0000000
Baker's Professional Lighting:Store #25	Jan	10	2,381.00	1.0000000	2,381.00	1.0000000
Cole Home Builders:Phase 1 - Lot 2	Feb	17	2,187.45	1.0000000	2,187.45	1.0000000
Cole Home Builders:Phase 1 - Lot 4	May	17	2,187.45	1.0000000	2,187.45	1.0000000
Cole Home Builders:Phase 1 - Lot 5	Apr	17	2,187.45	0.0845332	2,187.45	0.0845332
Cole Home Builders:Phase 1 - Lot 5	May	14	1,637.10	0.0632652	3,824.55	0.1477984
Cole Home Builders:Phase 1 - Lot 5	Jun	46	5,833.80	0.2254452	9,658.35	0.3732436
Cole Home Builders:Phase 1 - Lot 5	Jul	74	9,803.25	0.3788432	19,461.60	0.7520868
Cole Home Builders:Phase 1 - Lot 5	Aug	45	6,415.20	0.2479132	25,876.80	1.0000000
Cole Home Builders:Phase 2 - Lot 5	Jan	17	2,187.45	0.1565450	2,187.45	0.1565450
Cole Home Builders:Phase 2 - Lot 5	Feb	6	4,364.00	0.3123099	6,551.45	0.4688549
Cole Home Builders:Phase 2 - Lot 5	May	14	1,637.10	0.1171592	8,188.55	0.5860140
Cole Home Builders:Phase 2 - Lot 5	Jun	14	1,637.10	0.1171592	9,825.65	0.7031732
Note: This is a sales summary table by each customer and each month						

Identification of sales outliers for FY2018



RAudit Solution LLP | Stewart Li

Modeling



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