GIOVANNI COLITTI

💼 EXPERIENCE

2022 | Current

Data Scientist
Apple - Cloud Services (contract) 📍 Remote
- Helped create the cost model for K8s services at Apple and created a Shiny app used to visualize the cost model under different parameters.
- Built tooling for automated K8s chargebacks used by finance.
- Developed K8s usage reports for internal customers to improve transparency and efficiency.
- Analyzed workloads' usage patterns and performed scheduling simulations to make recommendations on hardware configurations.
- Created multiple internal R packages to facilitate working with Mosaic and Quip APIs.

2020 | 2022

Senior BI Analyst
Fieldin 📍 Remote
- Developed Shiny app to perform interactive mapping of machine data
- Developed Shiny app to interactively create visualizations and tables in PowerPoint slides; A user survey revealed time-savings from the app of hours per week per user.
- Developed algorithm for counting harvest loads by analyzing distance patterns between harvesters and bankouts.
- Predicted machine unloading events with 90% accuracy.
- Created framework for estimating customer costs.
- Used ShinyProxy to publish applications and manage user access.

2018 | 2020

Data Scientist
Grimmway 📍 Bakersfield, CA
- Trained ML models in R to forecast sales and yield; forecasts improved predictive accuracy by 30-50% over previous methods.
- Built object detection pipeline to generate carrot stand count estimates.
- Implemented LPs in R to optimize planting and harvesting activities.
- Analyzed field trial data in R using appropriate statistical methods.
- Developed an R package for performing cross-validation of time-series data with irregular time slices.
- Created Shiny apps to visualize forecasts and implement constrained optimization problems.
- Performed sample size calculations and provided spatial sampling recommendations.
- Communicated analytical methods and results to the executive team.

2014

Research Assistant
California State University, Channel Islands 📍 Camarillo, CA
- Created visualizations in Stata and wrote literature reviews of scientific articles related to Chinese & Indian stock, currency, and debt markets.

CONTACT INFO

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📄 https://tinyurl.com/twxsa92

SKILLS

Analytical Methods: regression, classification, clustering, feature engineering, linear programming and optimization methods, causal analysis, Bayesian and Monte Carlo methods

Coding: R (shiny, data.table, dplyr, ggplot, plotly, rmarkdown, leaflet, tidymodels, fable, brms, lpSolve, purrr, devtools, golem, testthat, renv, shinytest), Stata, SQL, Git, Docker

Languages: English, Chinese

COURSEWORK

R Programming (I/II)
Ecological Data Analysis in R
Quantitative Business Science
Econometrics (I/II)
Financial Econometrics
Web Applications in R with Shiny
Quantitative Methods
Applied Microeconomics
Advanced Macroeconomics

🎓 EDUCATION

2018
National Taiwan University
M.S. in Agricultural Economics (4.0 GPA)
📍 Taipei, Taiwan

2016
California State University, Channel Islands
B.A. in Economics (3.8 GPA)
📍 Camarillo, CA

📄 SELECTED RESEARCH

2018
Do Concealed Firearms Decrease Crime? An Analysis Using Active Concealed Firearm License Data in the United States
Used a unique dataset on county-level concealed firearms permits and applied two-stage least squares estimation to show that concealed firearms do not decrease crime.
DOI: http://dx.doi.org/10.6342/NTU201800993

2018
Do HEVs Cause More Cyclist & Pedestrian Injuries?
Used logit model & large UK accident-level dataset to show that quieter electric vehicles significantly increase pedestrian accidents net of other covariates including speed limit and urbanization. Also used Bayesian methods (MCMC) to estimate the posterior distribution and check for non-normality in estimates.

2018
Effect of Hurricane Morakot on Agricultural Prices in Taiwan
Used a difference-in-differences (DiD) event study model and a large transaction-level dataset to quantify the casual effect of Hurricane Morakot on vegetable prices in Taiwan, adding weight to the literature that claims weather is oftentimes the most important driver of local agricultural prices.

🏆 ACADEMIC HONORS AND AWARDS

2018
Thesis Competition First Place Prize
Master's thesis presentation competition first place winner.

2016
Taiwan Ministry of Education Scholarship
Merit scholarship for post-graduate studies in Taiwan.

2016
Program Honors in Ecnomomics
Selected by CSUCI Economics Department faculty for outstanding achievement.

2014
Wang Family Scholarship
Merit scholarship for international study in Taiwan & Mainland China.

2012
President's Scholarship
Highest scholastic achievement award in CSU system; only handful awarded annually.