Mitchell O'Hara-Wild

DATA SCIENTIST

Melbourne, Australia

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Current employment

Nectric   *Melbourne, Australia*

DATA SCIENTIST   *Jan. 2019 - Present*

- Data science consulting projects including spatio-temporal modelling, and large scale forecasting.
- Hosting workshops improving data literacy, development, analysis and modelling capabilities.

Monash University   *Clayton, Australia*

RESEARCH ASSISTANT   *Oct. 2015 - Present*

- Involved in many internal and external data projects of varying size and complexity.
- Projects typically feature large scale time series modelling or analysis, cross-sectional modelling and creating tools for improving workflows.
- Consulting project clients include: Huawei, Monash University, R Consortium, NSW Chief Scientist office, DiabetesLab and Tennis Australia.

Monash University   *Clayton, Australia*

TEACHING ASSOCIATE   *Mar. 2016 - Present*

- Sessional teaching of university students undertaking Bachelor's and Master's degrees. Specific classes are listed in 'Teaching experience'.

Education

Monash University   *Clayton, Australia*

BCOM (HONS) IN ECONOMETRICS   *Mar. 2017 - Nov. 2017*

- Recipient of the Econometrics Honours Memorial Scholarship, Dean's Honour, Dean's Commendation, and best in class for 5 units.
- Honours research project was to develop a state space model for quickly forecasting time series with multiple seasonalities.
- Studied units include Bayesian and frequentist econometrics, advanced statistical modelling and computational science.

Monash University   *Clayton, Australia*

BCOM IN ECONOMETRICS, BSC IN MATHEMATICAL STATISTICS AND COMPUTATIONAL SCIENCE   *Mar. 2013 - Nov. 2016*

- Recipient of the Monash Community Leaders Scholarship, International Institute of Forecasters Award, and best in class for 4 units.
- Mentor for the Access Monash Ambassador Program (2015 and 2016)
- Participant of the Vice-Chancellor's Ancora Imparo Student Leadership Program (2014)
- Studied a broad range of units covering many aspects of data science. The three disciplines I majored in explored different perspectives for working with data.

Teaching experience

UNIVERSITY TUTORING

2021 S1 **ETC3550/ETC5550**: Applied forecasting (Monash Clayton)

2020 S2 **ETC5523**: Communicating with Data (Monash Clayton)

2020 S1 **ETC3550/ETC5550**: Applied forecasting (Monash Clayton)

2019 S2 **ETC3580**: Advanced statistical modelling (Monash Clayton)

2019 S2 **ETC1010**: Data modelling and computing (Monash Clayton)

2019 S1 **ETC1010**: Data modelling and computing (Monash Clayton)

2019 S1 **ETC3550/ETC5550**: Applied forecasting for business and economics (Monash Clayton)

2018 S2 **ETC1010**: Data modelling and computing (Monash Clayton)

2018 S2 **ETC3580**: Advanced statistical modelling (Monash Clayton)

2018 S1 **ETF3231/ETF5231**: Business forecasting (Monash Caulfield)

2017 S2 **ETC1010**: Data modelling and computing (Monash Clayton)

2017 S1 **ETF3231/ETF5231**: Business forecasting (Monash Caulfield)

2016 S2 **ETF2700**: Mathematics for business (Monash Caulfield)

2016 S1 **ETF3231/ETF5231**: Business forecasting (Monash Caulfield)

Jan. 2020 **Tidy Time Series and Forecasting in R**: Teaching assistant (rstudio::conf, USA)
Two day workshop with Rob Hyndman on forecasting using tidyverse workflows.

Nov. 2019 **Interactive documents with Shiny**: Instructor (CSIRO, Australia)
Two day intermediate workshop on developing of shiny applications.

Sep. 2019 **Data Wrangling**: Instructor (Monash University, Australia)
A short workshop in the 'R Workshops for Beginners' series on using tidyr and dplyr to wrangle data.

Jul. 2019 **Tidyverse developer day**: Helper (RStudio, France)
A one day developer day where I helped R users resolve issues on tidyverse packages.

Aug. 2019 **High-dimensional time series analysis**: Teaching assistant (ISI WSC, Malaysia)
One day short course with Rob Hyndman for analysing and forecasting large collections of time series.

Mar. 2019 **The grammar of animation**: Instructor (Monash University, Australia)
A short workshop for NUMBAT group on creating animated graphics in R with the gganimate package.

Dec. 2016 **Master R Developer Workshop**: Teaching assistant (RStudio, Australia)
A two day workshop with Hadley Wicham on programming with R and developing R packages.

Software development

2020 **distributional**: Lead developer
Vectorised distribution objects with methods for manipulating and computing on probability distributions.

2019 **fable**: Lead developer
A collection of time series models for use in a tidyverse workflow.

2019 **fable.prophet**: Lead developer
Extension package implementing the prophet forecasting procedure for fable.

2019 **feasts**: Lead developer
A collection of features, decompositions, statistics and graphics tools for the analysing tidy time series data.

2019 **fabletools**: Lead developer
Provides common utilities for the fable forecasting framework, allows users to extend fable with new models.

2019 **tsibbledata**: Lead developer
Diverse datasets in a tidy time series data structure (tsibble). Useful in examples of tidy time series analysis.

2019 **tsfeatures**: Author
Various methods for extracting features from time series data.

2018 **tsibble**: Contributor
Tidy temporal data structures and tools. The data for the tidy time series collection of packages.

2018 **vitae**: Lead developer
Dynamically generate a Résumé or CV using R Markdown. This CV is created using code with that package!

2017 **fasster**: Lead developer
Implementation of the FASSTER model for forecasting complex multiple seasonal patterns.

2017 **icon**: Lead developer
Embed SVG icons in R documents such as slides, reports and apps.

2018 **taipan**: Lead developer
Generates shiny apps for annotating image data, which is useful for training machine learning models.

2017 **ggquiver**: Lead developer
Extends ggplot2 for displaying vector fields on plots.

2015 **forecast**: Author
Methods and tools analysing univariate time series data and producing model-based forecasts.

Presentations

2020   **Forecasting with multiple seasonality**: Methods and techniques to multiple seasonal forecasting in R

`https://slides.mitchelloharawild.com/nhs2020/`

2020   **Probabilistic cross-temporal hierarchies**: Recent developments of temporal reconciliation in fable.

`https://slides.mitchelloharawild.com/isf2020/`

2019   **Flexible futures for fable functionality**: Gradual introduction to tidy forecasting with fable. Flexibility is demonstrated with combination modelling and package extensibilitiy.

`https://slides.mitchelloharawild.com/fable-tfeam/`

2019   **Flexible futures for fable functionality**: Reconciled forecasting of many time series with model combinations.

`https://slides.mitchelloharawild.com/isf2019/`

2018   **Tidy forecasting in R**: Discussion of recent developments to the fable framework.

`https://slides.mitchelloharawild.com/fable-tfeam/`

2018   **Forecasting multiple seasonality with state switching**: The FASSTER model with the fable framework.

`https://slides.mitchelloharawild.com/user2018`

2017   **Models for forecasting multiple seasonality**: An introduction to the FASSTER model.

`https://slides.mitchelloharawild.com/melburn17/`