ETC5543: Masters of Business Analytics Internships

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The program

We have a Masters in Business Analytics in the Econometrics and Business Statistics department in the Monash Business School and in the final semester of the program, the students have an option to do an internship. The aim is to give our students some work experience in analytics and to build links with various companies, institutions, and charities.

The program is highly selective and has an annual intake of around 50–60 students. The majority of our students will undertake the internship component of the program.

The students will have advanced R and data science skills. As well as having experience with various types of statistical analysis and machine learning, they have strong training in modern techniques for building reproducible analysis pipelines, automated reporting, and building interactive tools for understanding data.

The students will also meet regularly throughout the project with us and their fellow students to discuss problem solving and analysis techniques that are relevant to their projects.

The internship

An internship is usually one of the last components of the Masters of Business Analytics. Our students are well-trained in the entire workflow of data analysis including data collection, munging, exploratory analysis, modelling and reporting. Our program is based around R, so all students should have relatively advanced R skills. Some of them may also have Python, SQL and other language skills. Our students are also taught to use modern reproducible practices and are comfortable with using git, Rmarkdown, etc.

As part of an internship, a student will undertake a data analysis project for an approved organization. The project is for a minimum of 150 hours to be undertaken at a time suitable to the organization and the student. This does not have to be done during normal teaching periods. Normally, the majority of the hours are to be spent on site (or virtually) embedded in the organization. It is not a requirement that students are reimbursed for this work, although some organizations choose to pay students a nominal wage during their internship. (Monash will provide insurance for all students provided they are not classified as employees.)

Suitable projects should involve a substantial data analysis or modelling component, and should address a problem of interest to the sponsoring organization. At the start of the program, the organization, Monash University and the student must all agree on a suitable project. The project can take place any time during the year, but most students will be available from late July to the end of October.

One important restriction on the project is that it must fit with our assessment structure for the unit. We are asking the students to produce a report[1] on their work (which may include interactive apps that they have developed if appropriate), give a short talk, and provide access to their analysis code, ideally in a private github repository[2] (the data does not need to be available to Monash.)

The reports will be archived privately by Monash. We are happy to work with you to make this as painless as possible, and we have some flexibility here if some aspects of the project are sensitive.

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[1]This may be anonymised, deidentified, or redacted as required, so long as it is still possible to assess the student's work.

[2]We are happy to discuss other options for assessing the code if a repository is not feasible for your company. This should be decided before the internship begins.

The conditions

You are not under any obligation to pay the students, although some companies choose to provide a nominal gratuity to cover expenses. The students are covered by Monash's insurance for the duration of the unit provided they are not employees of your company.

Each student will need a supervisor from the sponsoring organization who must meet with the student at least weekly to ensure the student is on track.

All participating students will also meet regularly (also weekly) with a Monash University academic who can help with any technical issues.

At the conclusion of the project, the supervisor will need to provide a one page report to Monash University on the student's performance.

Assessment

Students will be assessed on the following four items.

1. A written report of around 5000–10000 words and no more than 30 A4 pages including tables, graphs and references. Alternatively, some or all of this might be replaced by a Shiny app or an R package requiring equivalent work. (50%)
2. A short presentation of between 5 and 10 minutes summarising the main results of the analysis undertaken. (20%)
3. A git repository providing all files needed to reproduce the analysis, the report and the presentation materials. (20%)
4. A one page report from the supervisor of the project on the student's performance. (10%)

Project proposals

If you think you can accommodate an intern, please submit a proposal to https://bit.ly/MBAt-internship-proposal

Any further questions?

If you have any further questions please contact us at dicook@monash.edu or rob.hyndman@monash.edu.