Economics Career Development Office
DEPARTMENT OF ECONOMICS
UNIVERSITY OF WISCONSIN–MADISON

Data Analytics Career Guide

What is Data Analytics?

Data analytics involves analyzing raw data to make conclusions about that information and converting it into actionable insights. It includes a range of tools, technologies, and processes used to find trends and solve problems by using data. Data analytics can shape business processes, improve decision-making, and foster business growth. An understanding of economics and economic concepts can give you a competitive edge in this industry. Economic theory provides a framework to contextualize the data. Not just knowing how to analyze the data, but knowing the significance of the results is a skill highly sought after by employers.

Recommended Courses

Core Electives in the major

Econ 310 – Statistics: Measurement in Economics

Econ 400 – Introduction to Applied Econometrics

Econ 410 – Introductory Econometrics

Econ 460 – Economic Forecasting

Econ 570 – Fundamentals of Data Analytics for Economists

Applied Electives in the major

Econ 315 – Data Visualization for Economists

Econ 390 – Visualization & Analysis

Econ 390 – Quantitative Tools for Economics

Suggested Courses Outside of the Department of Economics

Comp Sci 220 – Data Science Programming II (Data Science programming in Python)

Stat 240 – Data Science Modeling

Computer Science 301- Introduction to Data Programming

Gen Bus 307- Business Analytics II

Statistics 327- Learning a Statistical Language

Sociology 210: Survey of Sociology

Relevant Majors & Certificates

Majors:
- Data Science (Dept of Statistics)
- Sociology Concentration in Analysis and Research (Dept of Sociology)
- Computer Sciences (Dept of Computer Sciences)

Certificates:

- [Data Science Certificate](#) (Dept of Statistics)
- [Computer Sciences](#) (Dept of Computer Sciences)

Student Organizations
- Economics Student Association: https://www.esauwmadison.com/
- Women in Economics: https://win.wisc.edu/organization/we
- dotData – the Data Science Club: http://dotdatascience.org/
- Girls Who Code: https://win.wisc.edu/organization/girlswhocode
- Data & Analytics Club: https://win.wisc.edu/organization/dac
- Data Science for Sustainable Development: https://win.wisc.edu/organization/dssd-madison

Search https://win.wisc.edu/organizations for additional student organizations.

Gain Technical Training & Experience
- [DoIt Software Training for Students](#): Free workshops including Excel, R, Python, Intro To Programming, HTML, CSS, JavaScript, WordPress and others.
- [SSCC Training Classes](#): As an economics major you have access to a unique set of free classes designed to teach students data analysis software. These classes are in person or also available as an online training curriculum that you can complete at your own pace. Workshops cover Python, R, Data visualization in R, and Stata.
- [Learn Python](#): A repository listing a variety of free online Python trainings across levels of expertise and applications.
- [Kaggle](#): Kaggle has many projects or "competitions" that allow you to work through a data science question. Your completed project can go on your resume and be a great talking point in an interview.

Job and Internship Search Resources
- [Handshake](#) - Find internships and jobs, as well as info sessions and workshops on campus
- [Job search via Google](#) – Search for internships and jobs. Pro tip: use the name of your preferred analysis software (ex., python) as a keyword in your search.
- [MyVisaJobs](#) – Find U.S. employers who have historically sponsored international employees
- [LinkedIn](#) – Create a professional social media profile to connect with future employers; follow companies of interest to learn about new job postings

Data Analytics Specific Job Search Sites:
- [UW Student Job Center](#) (Search for part-time student jobs on campus that involved data)
- [Dice](#) (jobs postings in tech and data)
- [Wellfound](#) (job postings from startups)
- [Twitter_econRA](#) (exclusively retweets entry-level econ data research roles)

Sample Job Titles
- Business analyst
- Quantitative analyst

- Data scientist
- Data analyst
- Research analyst
- Research assistant

Additional Resources for Career Exploration

- [Economic Career Development Office](#) – Get career guidance, resume and cover letter reviews, and interview tips
- [Technology, Data & Analytics Career Community](#) at SuccessWorks
- [Occupational Outlook Handbook](#) – Explore occupations by industry or interest area and learn what the positions do, how to become one, pay ranges, job outlook, and similar occupations
    - [Data Scientist Occupational Outlook Handbook](#)
    - [Market Research Analyst Occupational Outlook Handbook](#)
    - [Operations Research Analyst Occupational Outlook Handbook](#)