Jobs in Economic Analysis for Econ MS students

Overview: The Master of Science in Economics degree at UW-Madison provides students with a strong training in econometrics and data analysis. Because of this, many program graduates successfully pursue careers in this area. There is demand for quantitative modeling and data analysis skills from employers across a variety of industries including: finance, insurance, tech, health, and large retailers.

A sample of UW-Madison Econ MS placement job titles by industry (*denotes international student placement)

Tech/e-commerce:
- Amazon – Business Intelligence Engineer*
- Swoop Search – Software Engineer
- TikTok – Data Scientist*
- Bluestem Brands – Credit Risk Analyst*

Finance/Insurance:
- East West Bank – Financial Quantitative Analyst*
- State Auto Insurance – Data Scientist
- Liberty Lending – Credit Risk Analyst*
- Comerica Bank – Model Risk Officer Assistant*
- Goldman Sachs – Fee and Commission Analyst*
- Metlife – Data Specialist*
- Unity Bank – Bank Intelligence
- Goldman Sachs – Operation Analyst*

Health:
- United Health Group – Data Scientist
- Insight Health Analytics – Business Analyst*
- UW-Health – Analytics Consultant

Retail:
- The Home Depot – Customer Data Quality Analyst*
- Altria Group – Analyst*
- Walmart – Data Analyst*

Many of these roles are quite similar in their overall analysis of data, there are a few differences:
- **Financial analysts** use financial data to spot trends and extrapolate into the future, helping their employers and clients make the best investing decisions. They review financial decisions based on current market trends, stated business objectives, and possible investment options of companies while also reviewing economic data and financial forecasts.
- **Data analysts/Business analyst** study figures related to sales numbers, advertising efficacy, transportation costs, or wages versus productivity. They collect data and examine it to spot trends and glean information that can be used to make business decisions. In the information age, companies rely on big data more than ever to make decisions such as which customers to target, which products and services to focus on, which advertising methods to use, how many people to hire and for which positions, and new markets for expansion.

- A **data scientist** collects, analyzes, and interprets large volumes of data, in many cases, to improve a company's operations. Data scientist professionals develop statistical models that analyze data and detect patterns, trends, and relationships in data sets. This information can be used to predict consumer behavior or to identify business and operational risks. The data scientist role is often that of a storyteller, presenting data insights to decision-makers in a way that is understandable and applicable to problem-solving.

Common qualifications/key skills needed for these roles include:
- Programming language & statistical analysis software experience (Python, SQL, R)
- Strong quantitative/analysis skills - modeling
- Strong communication skills – writing reports, interpreting/communicating results to stakeholders, presentation/verbal
- Data visualization skills
- Ability to work in a team/collaborative environment

Extra courses during MS:
- Data Analytics for Econ
- Machine Learning for Econ

Experiences during MS:
- Spring research groups with faculty
  - Information is sent out in November about how to register for research groups
- Complete projects to gain experience working with data. Add projects to your resume.
  - Work on machine learning projects in [Kaggle](#)
  - Complete skills challenges and prepare for technical interviews using [HackerRank](#)
  - Participate in analytical case competitions (when available, listed in [Handshake](#))
- Econ 706 paper
  - Think about what data analysis/modeling skills you want to learn and/or showcase
- [SSCC training](#) in R, Python, or Stata
- The Libraries Workshop Series in [R](#) or [Python](#)
- Work a part-time student job on campus in data analysis (ideally after your 2nd semester): To find these roles, search the [UW student job center](#) website using the keyword "data".
  - UW-Madison Econ MS students are not eligible to accept "tuition remission" as a condition of campus work. Students are eligible to work for an hourly wage.