Workshops on Financial Datasets, Tools, and Interdisciplinary Research

The cross-disciplinary training is aimed at faculty, graduate students, and undergraduate students from all disciplines interested in learning about working with archived high-quality commercial datasets, research tools, and collaborative research projects.

Organized by **Financial Infrastructure Stability and Cyber-security (FISC) Center**
For latest updates about the events visit: http://www.memphis.edu/finance/research/fisc.php

About FISC: The Goal of the Financial Infrastructure Stability and Cyber-security (FISC) Center is to promote interdisciplinary research, identify systemic threats to financial infrastructure stability by applying big data analytics and advanced statistical techniques to financial data.

May 13: 9 am -10.30 am
Location: Cook Lab, Fogelman College of Business and Economics
Presenters: Jianning Huang & Will Zhang, Finance Doctoral Student
Topic: Introduction to Python programming and reading ITCH data using python

This session aims to teach everyone the basics of python programming. Anyone with moderate computer experience should be able to master the materials of this session. We will show examples of most commonly used python libraries (e.g., Numpy, Pandas, Scipy etc.) to handle financial datasets.

Nasdaq offers a historical record of the order and trade transaction data from the TotalView-ITCH data feed. The authors will provide step by step guide to parse every message type from the NASDAQ ITCH 5.0 binary data feed using python. Codes will be provided.

May 17: 10 am – 11 am
Location: Cook Lab, Fogelman College of Business and Economics
Presenter: Meghan Newman, Finance Doctoral Student
Topic: Introduction to WRDS, CRSP & Compustat database

WRDS (Wharton Research Data Services) provides researchers with single location access to dozens of datasets across multiple disciplines including Accounting, Banking, Economics, ESG, Finance, Healthcare, Insurance, Marketing, and Statistics. CRSP is provider of historical daily stock prices daily stock prices for all publicly traded companies from 1926 while Compustat provides annual/quarterly accounting information for 99,000 global securities.

In this session the presenter will give you a brief introduction to WRDS, CRSP, and Compustat. At the end we will discuss about interdisciplinary research opportunity with the audience.

May 24: 10 am – 11 am
Location: Cook Lab, Fogelman College of Business and Economics
Presenter: Will Zhang, Finance Doctoral Student
Topic: Bloomberg Terminal

The Bloomberg Terminal is a computer software system provided by the financial data vendor Bloomberg L.P. that enables professionals in the financial service sector. The Bloomberg Terminal delivers unparalleled coverage of markets and securities with information across asset classes — from fixed income to equities, to foreign exchange, commodities and derivatives — integrated in one place and delivered in real time to your desktop.

This workshop will be focusing on the various markets that Bloomberg covers (e.g. equity, fixed income, and forex) and the essential functions to access different types of information within the system. We will also learn how to efficiently retrieve market data from Bloomberg to Excel worksheets, as well as various report templates that provide qualitative and quantitative analyses on markets, industries, firms, and countries.

May 31: 10 am - 11 am.
Location: Cook Lab, Fogelman College of Business and Economics
Presenters: Kelley Anderson, FIR Instructor and David Taylor, Finance Doctoral Student
Topic: Thomson Reuters' Datastream

Datastream Advance by Thomson Reuters provides current and historical time series data on stocks, stock indices, bonds, futures, interest rates, commodities, derivatives, exchange rates, and economic data. The scope is global in coverage. Presenters will be giving an overview of the rich list of Datastream variables, how to access and download them, how to format and import the data to SAS, and show examples of how the data is used in their FISC research.

June 7: 10 am - 11 am
Location: Cook Lab, Fogelman College of Business and Economics
Presenter: Rasheek Irtisam, Finance Doctoral Student
Topic: Text Analysis in finance & WRDS SEC analytics Suite

A growing body of finance and accounting research uses textual analysis to examine the tone and sentiment of corporate 10-K reports, newspaper articles, press releases, and investor message boards. One of the most widely used technique to analyze the tone of a text is to use Harvard Psychological Dictionary. However, Loughran and McDonald (2011) develop an alternate dictionary that better captures the tone of a text in a financial context.

In this session, we will discuss about Loughran and McDonald (2011) dictionary and its uses in finance literature. We will then download the LM sentiment dataset from WRDS SEC analytics suite for 10K and 10Q statements and later show how to use this dataset in research work.

June 14: 10 am - 11 am
Location: Cook Lab, Fogelman College of Business and Economics
Presenter: Shawn McFarland, Finance Doctoral Student
Topic: HealthCare data

Cerner Healthfacts includes encounter level data for over 40 million patients from 2000-2015. An encounter is admission to discharge for each individual patient. The data set includes provider variables, payer variables, patient variables, and treatment variables. Ongoing projects include more efficient insurance model and stroke outcomes.