Evan Hofmeister

(608) 772-9498 | evan.hofmeister@gmail.com | github.com/Evan-Hofmeister

DATA SCIENTIST

Experienced data analyst with MS in Applied Mathematics with expertise using predictive analytics, machine learning, and statistical models in the finance field. Strong interest in expanding knowledge of machine learning, modeling, and big data analytics in other fields. Looking for a data scientist position that provides learning and growth opportunities in a team-based work environment.

PROGRAMMING AND COMPUTING SKILLS

- Python, R, SQL, Git, LaTeX
- Applied ML libraries (NumPy, Pandas, Scikit-learn, etc.)
- Data visualization tools [Tableau, R Shiny, Plotly, Matplotlib, Seaborn]
- QRM, Bloomberg Terminal/API, Excel, PowerPoint

GRADUATE COURSEWORK

- Data-driven Optimization (Machine Learning, Deep Learning, Dynamic Programing, Reinforcement Learning)
- Statistical Learning, Industrial and Systems Engineering, Credit Risk Management, Financial Ethics
- Stochastic Calculus, Financial Data Science, Financial Software Development and Integration with C++
- Machine Learning for Finance, Simulation and Monte Carlo Methods, Asset Allocation and Portfolio Management
- Optimization Methods in Finance, Investment Science, Options and Other Derivatives

PROFESSIONAL EXPERIENCE

CIT Bank, Los Angeles, CA *(Acquired by First Citizens BancShares in Jan 2022)* Jan 2019 – Present

Senior Quantitative Analyst, Asset and Liability Management (ALM) & Strategic Liquidity Risk

- Design predictive models to set and monitor liquidity risk limits and forecast the Bank's liquidity risk
  - Identify liquidity risk scenario drivers and determinants and establish model methodology
  - Develop underlying models to forecast behavior of Bank asset and liability subclasses to be used as meta-features in higher level liquidity models (involves data wrangling, feature selection, validation)
  - Implement, maintain, and deploy production liquidity models and algorithms in Enterprise Risk Framework (PySpark, QRM)
  - To date, these developments have reduced liquidity stress within the model by ~$2B per month, which in turn reduced the Bank's cost of contingent liquidity
- Perform complex data analytics to assess risk and guide business decisions relating to Asset and Liability Management
  - Develop, test, debug, document, deploy, and monitor models and algorithms aimed at forecasting deposit portfolios' behavior: attrition, growth, product switching and change in interest rate risk of $50B deposit portfolio (survival analysis, ARMA models, linear/nonlinear/logistic regression)
  - Complete ad hoc projects, including applications in machine learning, statistical and econometric modeling (clustering, classification, optimization)
  - Create dashboard and associated data pipelines to report daily on institution's $50B deposit portfolio behavior, positions, and changing risks to be disseminated to senior leadership
  - Utilize SQL, Python, and R to support time-series data analytics, model building, and creation of data pipelines
- Support strategic integration of Liquidity and ALM data and models following merging of financial institutions
  - Integrate data lakes, warehouses, databases, and data pipelines to create consolidated data architecture
  - Develop liquidity model methodology for newly acquired asset and liability classes and to model behavior of expanded customer base
  - Communicate regularly with new leadership/consultants/vendors to provide project updates
  - Utilize project management methodology and employ agile framework approach to model development life-cycle
- Create business efficiencies
  - Support automation of ETL process, data cleaning and wrangling, and maintenance of data warehouses
  - Optimize process to create large-scale internal ALM datasets by aggregating time-series data from multiple internal data warehouses and external APIs, then transform, map, clean, and interpolate data
  - Effectively communicate results to all levels of the organization, including bank leadership, to inform business strategy using data visualization tools, oral presentations, and written reports
- Participate in overall balance sheet management design and advise on Bank profitability management
  - Collaborate in modeling forums and peer reviews of models and algorithms
  - Support conversations with regulators to validate, review, and strengthen internal risk models and methodology
  - Review industry methodology and research (risk management and applied mathematical modeling)
  - Work both collaboratively and independently to explore different statistical frameworks, implement data governance, and meet deadlines and SLAs

U.S. Bank, Minneapolis, MN Jun 2018 – Aug 2018
Quantitative Model Development Graduate Intern, Wholesale Banking Division

- Expanded understanding and use of statistical methods and statistical learning
  - Applied learning to credit risk modeling (survival analysis, vintage analysis)
  - Formally addressed model risks raised by internal validation group for the Wholesale Basel model development
- Collaborated on projects related to default modeling using SQL, SAS, and Python
  - Contributed to enhancement of Basel Probability of Default, and Loss Given Default modeling for Wholesale Commercial Real Estate (CRE) and Commercial and Industrial (C&I) Portfolios
  - Designed study to test and validate complex internal rating system based on Wholesale credit risk models
- Participated in overall risk management framework and contributed to the broader Model Development mission
  - Collaborated on stress testing model validation reviews (including Dodd-Frank Act stress tests)
  - Contributed methodological expertise as well as knowledge of current academic, policy, and industry research to departmental modeling forums
  - Supported audit preparation activities related to model development

State of Wisconsin Investment Board, Madison, WI Oct 2016 – Jul 2017
Analyst, Investment Operations & Fund Accounting Division

- Researched financial indicators
  - Assessed trends in stock/capital markets, financial instruments, and corporate actions using Bloomberg Terminal/API and other risk analytics tools
- Facilitated key business activities
  - Assisted daily investment trade operations for equity, fixed income, mutual fund, over-the-counter (OTC), and derivative securities
  - Coordinated with trading staff, portfolio managers, and fund analysts to ensure proper processing of trades, corporate actions and similar events
- Established accounting controls
  - Reconciled collateral positions (more than $100M), movements, margin calls, and valuation for derivatives
  - Instructed over $5M in collateral cash movement daily

Wisconsin State Controller's Office, Madison, WI Jun 2016 – Oct 2016
Analyst, Treasury Services Department

- Developed key payment systems
  - Designed, managed, and fine-tuned secure electronic payment systems for multiple state agencies using Java
  - Coached state agencies in recording and analyzing of bank transactions in the enterprise resource planning (ERP) system and general ledgers
- Independently created and maintained large-scale relational databases and data warehouses to manage financial data utilizing SQL and VBA
- Reconciled WI Retirement System financial data in preparation for semi-annual audits ($100M in reconciled accounts)
- Participated in meetings with client agencies, compliance organizations, and financial service corporations
- Collaborated on developing a Request for Proposal for banking services

Googins Advisors Inc., Middleton, WI Jul 2014 – Sep 2015
Finance Intern

- Formulated asset allocation recommendations for client portfolios based on research of market trends in economic sectors, stock market indices, and financial instruments
- Analyzed aggregated client data to track trends in cash holdings and portfolio performance utilizing SQL and VBA
- Prepared tailored comprehensive client portfolio reports on a daily basis and presented findings formally and informally
- Consulted with clients to understand investment goals, timeline, and risk tolerance

EDUCATION

University of Washington, Seattle, WA
Master of Science in Computational Finance and Risk Management Dec 2018

University of Wisconsin, Madison, WI
Bachelor of Science in Economics – Mathematical Emphasis May 2016

ACTIVITIES AND INTERESTS

- Numerical Analysis Research Club, University of Washington – Seattle, 2017-2020
- Member, Economics Student Association, University of Wisconsin – Madison, 2014-2016
- Mentor, Big Brothers Big Sisters of Dane County – Madison, 2013-2017