

William John Lang

(412) 925-3034
billlang343@gmail.com

<https://github.com/bill-spec>
<https://bill-spec.github.io/personalWebsite/index.html>

EDUCATION

University of Pittsburgh, Pittsburgh, PA
Bachelor of Science: Economics-Statistics
Minor in Computer Science

Dietrich School of Arts & Sciences
Cumulative GPA: 3.88
Summa Cum Laude

RESEARCH PUBLICATIONS AND WORKING PAPERS

- Monetary Policy Tightening and Debt Servicing Costs of Nonfinancial Companies (With Yuriy Kitsul and Mehrdad Samadi; <https://doi.org/10.17016/2380-7172.3410>)
- Which Daily Equity Returns Improve Output Forecasts (With Mohammad Jahan-Parvar; <https://dx.doi.org/10.2139/ssrn.4634206>)

ACADEMIC ACHIEVEMENTS AND AWARDS

Marion O'Kellie and Alma B. McKay Economics Award (Fall 2019 – Spring 2020),
University of Pittsburgh Dean's List (All Semesters),
Community College of Allegheny County Dean's List (Fall 2017)

WORK EXPERIENCE

Federal Reserve Board, Senior Research Assistant, International Finance, Global Capital Markets

May 2022-Present

- Developed forecasts for macroeconomic variables using daily financial data and MIDAS models
- Reported on the passthrough of monetary policy to nonfinancial corporations and associated risks
- Constructed and analyzed equity return portfolios by risk factor exposure with Fama-French factors
- Analyzed corporate earning calls and 10-K reports using natural language processing techniques

Federal Reserve Board, Research Assistant, International Finance, Global Capital Markets

May 2021-May 2022

- Supported timely policy analysis and visualizations with R, Python, and GCL
- Developed database infrastructure for the analysis of market uncertainty through option prices
- Lead section initiative to streamline and improve processing of our S&P Capital IQ infrastructure resulting in faster and detailed financial stability reporting
- Maintained and upgraded the section's internal website and time series database systems for ease of reporting and policy objectives

University of Pittsburgh, Economic Research Assistant, University of Pittsburgh

Aug. 2019-April 2021

- Deployed a machine learning model to geocode and classify 2.5 million newspaper home listings
- Scaled and automated the incoming data pipeline for adjacent researchers in R and Python
- Employed R and Python to assist with dataset management, organization, and presentations
- Utilized ArcGIS software for geocoding, spatial visualizations, and data exporting
- Constructed and tuned random forest models in R

FedEx Ground, Linehaul Department Analytics Intern

July. 2020-Dec. 2020

- Developed and deployed automated statistical analytics dashboards for contractor fleet compliance reporting
- Automated group Sharepoint system to streamline information to field operators in 12 districts
- Created concise statistical reports on the contractor fleet requests and gave recommendations on outliers

University of Pittsburgh, Undergraduate Teaching Assistant, Department of Economics

Aug. 2019-December 2020

- Aided in the administration of both the intermediate microeconomics and intermediate macroeconomics courses
- Conducted office hours and review sessions to aid students with problem sets and understanding lecture

PROGRAMING LANGUAGES AND OTHER TECHNICAL SKILLS

R, Python, Java, C++, Stata, SQL, SAS, Excel, VBA, Bloomberg, S&P Capital IQ, AWS, Git, GitLab, Hadoop, Hue, RShiny

OTHER ACTIVITIES

Neighborhood Learning Alliance, Volunteer Tutor

Dec. 2020-April. 2021

- Virtually tutored students in high school mathematics from city of Pittsburgh schools

Panther Investment Fund, Student Investment Portfolio, Senior Analyst

Jan. 2018-April. 2021

- Managed the industrial sector of a University sponsored equity fund, leading a team of ten other students
- Presented potential equity investments and covered Federal Reserve policy changes for student education
- Leveraged Bloomberg Terminal and S&P Capital IQ data for firm financial analysis and reporting