Table of Contents

JR1796 - Modeling and Analytics Opportunities - all experience levels

Victor Cardeno

(919) 601-1893, victor.h.cardeno@gmail.com | www.linkedin.com/in/victorcardeno/

QUALIFICATIONS

Ambitious, determined problem solver and team player with a strong desire to apply analytics to advance society. Holistic thinker drawing from a diverse and rigorous academic experience. Skills include:

- *Programming*: R (caret, dplyr, ggplot), SAS, Python (pandas, sci-kit learn), SQL, Stata
- *Visualization*: Tableau, MS Excel

EDUCATION

MS in Analytics, May 2021
Institute for Advanced Analytics
North Carolina State University, Raleigh, NC

- Relevant Coursework: Machine Learning, Data Mining, Regression, Time Series & Forecasting, Big Data

BS in Statistics; BA in Economics, May 2020
University of Notre Dame, Notre Dame, IN

- Relevant Coursework: Data Management, Data Visualization, Neural Networks, Econometrics, Decision Theory

PRACTICUM

Putnam Investments, August 2020 - April 2021

- Analyzing 60+ data metrics to predict companies that will receive Accounting and Auditing Enforcement Release (AAERs)
- Identifying key variables that predict receipt of AAERs among ~350,000 observations spanning 30 years
- Creating Python machine learning model using key variables to improve predictions

CERTIFICATIONS

SAS & Tableau

- SAS Certified Base Programmer for SAS 9 / SAS Statistical Business Analyst Using SAS 9
- Tableau Desktop Specialist

PROJECTS

Relevant Projects and Writing Experiences

- Used Random Forests to Measure Effect of Positional Performance in ACC
- Analyzed U.S. Air Traffic with ANOVA and Logistic Regression
- Considered Impact of Mayor's Party on Local Economic Outcomes using DiD
- Wrote 25-page Crisis Paper on Venezuelan Economic Plight
- Using Logistic Regression to Predict Insurance Purchase
- Visualization Analysis of NC State Women's Tennis Statistics

EXPERIENCE

Undergraduate Research Assistant, May 2019—May 2020
Wilson-Sheehan Lab for Economic Opportunities, Notre Dame, IN

- Processed and analyzed weekly demographic and outcome data to track project progress and identify intriguing insights
- Created difference of mean tables comparing outcomes for different study groups
- Featured in first edition of organization's printed newsletter discussing work at the Lab for Economic Opportunities and its impact

Team Lead, June 2018—December 2019
Notre Dame Undergraduate Sports Analytics Club

- Charted key performance indicators (KPIs) and analyzed ACC soccer data to aid the success of the Notre Dame men's varsity soccer team
- Created visualizations using Tableau to break down KPIs
- Started and led undergraduate analytics team in statistical breakdown of Notre Dame and ACC soccer statistics

P. CHRISTOPHER SCHMIDT

Applied Mathematics Master's Degree Candidate

Baltimore, Maryland USA

(410) 409-3105

p.christopher.schmidt@gmail.com

linkedin.com/in/chris-schmidt-94526a10/

github.com/PCSchmidt

Summary

In pursuit of a master's degree in applied mathematics with a concentration in quantitative finance and statistics at Towson University. Hard working, motivated, and an enthusiastic lifelong learner. Proud husband of the most amazing woman I know and father to three beautiful daughters. Love life.

Skills

Leadership

Extensive managerial and leadership experience including 20 years of head coaching experience with collegiate rugby and as president of Mobtown Restoration Group managing crew and subcontractor relationships.

Quantitative Analytics

Skilled in recognizing appropriate analytical tools and use of inductive and deductive reasoning to formulate conclusions and/or solutions that fit the problem at hand.

Technical

Experience with predictive analytics and quantitative analysis using R, Python, Java, SAS, Mathematica, and Excel.

Complex Problem Solving

Adept at using qualitative and quantitative reasoning to evaluate information, develop options, and formulate feasible solutions.

Education

2019 - 2021

Master's Degree Candidate Applied Mathematics

Towson University

3.934 GPA. Coursework concentration in quantitative finance and applied statistics.

2017 - 2019

B.Sc Applied Mathematics

Towson University

Recipient of an honorable mention award for the global Mathematical Contest in Modeling competition, sponsored by COMAP. Coursework includes Theory of Interest, Mathematical Statistics, Probability Theory, Probabilistic Modeling, Time Series and Regression Analysis, Operations Research, Abstract Mathematics, Numerical Analysis, Abstract Algebra, Real Analysis, Complex Analysis, Advanced Operations Research, Bayesian Statistics, Computational Finance, Computational Linear Algebra, and Predictive Analytics, Loss Models, Mathematical Finance.

Work experience

May, 2020 - Aug., 2020

Intern (Interdisciplinary- Data Scientist/Operations Research Analyst/Computer Scientist)

Centers for Medicare and Medicaid Services

Analytical work as assigned in the Center for Program Integrity which serves as CMS' focal point for all Medicare and Medicaid programs and CHIP integrity fraud and abuse issues. Engaged with large scale big data analytics applications involving use of SAS and Python.

May, 2019 - Aug., 2019

Summer Intern

SubCom, LLC

Summer Intern Baltimore. Consolidation and data analysis of daily project data output of transoceanic projects. Extensive data preparation and development of analytic models for predictive analytics in Excel and in R including linear and logistic regression analysis, regression trees, classification trees, random forests, generalized additive models.

Jan., 2012 - Dec., 2013

Mortgage Banker

NewDay USA

MLO licensed in 26 states, experienced with VA and FHA lending. Responsible for converting direct mail driven inbound leads using in-house proprietary sales methodology. Credit analysis and underwriting documentation gathering and submission. Excellent consultative sales, customer service and analytical skills, adept at developing confidence and trust with all stakeholders.

April, 2004 - Dec., 2011

President

Mobtown Restoration Group

Residential remodeling company with emphasis on historic restoration and preservation. Extensive hands on construction skills. Skilled in bid and proposal generation and evaluation, management of employees and subcontractors, and project risk and financial analysis.

May 1999 - April 2004

Senior Sales Associate

Wachovia Securities

Assisted team in managing institutional fixed income clients with sales, marketing, trade execution and settlement processes. Helped define team marketing and target client objectives. Research on fixed income assets and issuers. Sales, service and account administration for government, municipal, corporate, and agency fixed income transactions with client base. Proficient with Bloomberg terminal. Held series 7 and 63 registrations.

Alan Richard Pouliquen

4332 Country Club Circle, Virginia Beach, VA 23455 - (757) 240-6211 - arp5mc@virginia.edu
https://www.linkedin.com/in/alan-pouliquen/

Education

University of Virginia, McIntire School of Commerce | Charlottesville, VA
June 2021
Candidate for Master of Science in Commerce; Concentration: Business Analytics
- Cumulative GPA: 3.5/4.0

University of Virginia, College of Arts and Sciences | Charlottesville, VA
May 2020
B.A. in Media Studies: Concentration in Media Policy and Ethics; Minor in French
- Cumulative GPA: 3.6/4.0 | Dean's List 2017-2020

Work Experience

McIntire School of Commerce | *Graduate Teaching Assistant* | Charlottesville, VA
August 2020 – Present
- Collaborated with the professor of Management Communications to grade projects for 94 undergraduate students
- Assessed the writing quality of business memos to provide accurate evaluation and feedback of each student

Bohemia Group, Global Talent Management | *Summer Intern* | Los Angeles, CA
Summer 2018 and 2019
- Streamlined executive decision-making using pivot tables to assess growth opportunities for over 500 clients
- Reduced 17,000 dollars in outsourcing costs for the firm by integrating a customized graphic scheduling interface
- Partnered with a fashion line to lead a brand promotion event and increased Instagram following by 23%
- Recruited and helped cast over 80 actors into television and film roles resulting in the completion of a film thesis

Cavalier Daily | *Investigative Journalist* | Charlottesville, VA
August 2018 – January 2019
- Wrote, edited, and produced three hard-hitting investigative news stories for digital channels
- Influenced policy changes to transfer university housing after an investigation of negligent university practices
- Evaluated background research and reviewed all facts to maintain a high standard of journalistic integrity

Relevant Graduate Projects

McIntire School of Commerce, Business Analytics | *Data Analyst* | Charlottesville, VA
September 2020 – December 2020
- Used predictive analytics techniques on Rapid Miner to analyze internet user search history and determine optimal ad revenue generating models for Marriott hotels

- Developed a confusion and cost matrix to assess the revenue generated by using a support vector machine model
- Conducted ANOVA and multilinear regression analyses on SPSS to determine statistically significant differences in consumer perceptions between Starbucks and Dunkin

Leadership And Activities

McIntire Data Analytics Peer Learning Group | *Member* | Charlottesville, VA
August 2020 – Present

- Collaborated with a cohort of 20 peers to learn and refine skills in Python and data visualization

La Maison Française | *French Language Mentor* | Charlottesville, VA
August 2017 – May 2020

- Mentored UVA students through weekly French language discussions to improve speaking skills and vocabulary
- Organized culinary engagement events for students interested in learning about French gastronomy

Additional Information

- Foreign Languages: French (native speaker), Italian (beginner)
- Programs: Microsoft Suite, Rapid Miner, Tableau, SPSS, Python (beginner), SQL, Adobe Photoshop, Visio, R
- Hobbies: Classical Vocal Performance, Windsurfing, Swimming, EDM Production, Cooking

Wanyun Yang

Riverdale, MD || (301)503-7962 || wanyun0403@gmail.com || LinkedIn || GitHub || Portfolio

EDUCATION

University of Maryland, College Park, MD — December 2020
*Master of **Information Systems** GPA: 3. 7/ 4.0*
|| Won Outstanding Graduate Project Award in DC Data Challenge 2020 out of 80 teams from 5 universities ||
|| Selected as one of 30 Smith Master Student Association Ambassadors based on leadership potential and academic success ||

University of Maryland, College Park, MD — May 2019
*Bachelor of **Mathematics (Statistics Track)** GPA: 3. 4/ 4.0*

SKILLS & RELEVANT COURSES

Data Analysis: R, Python, SQL, SAS, Tableau, Power BI, D3, Git, AWS, Spark, Hadoop, PyTorch, Arena
Web Development: HTML5, CSS, React, Bootstrap, JavaScript, Node. Js, MongoDB, Unix, Java

EXPERIENCE

University of Maryland, College Park, MD — November 2020 - Present
Research Assistant (Text Analysis - R) & Teaching Assistant
- Analyzed platforms' resilience (pre- and post-Covid19) by scraping 2800 announcements from 80 companies' websites.
- Captured Covid19 response trends and features by performing word embedding with Glove and Word2Vec, topic modeling with LDA and SeededLDA, and sentiment analysis with dictionaries including BING, AFINN, and NRC lexicons.
- Created interactive presentations for the Data Mining class with 200 students by using Xaringan and Flipbookr packages.
- Graded the assignments of the Pricing and Revenue Management class, an MBA class with 20 students.

Center for Health Information & Decision Systems, College Park, MD — January 2020 - May 2020
Research Assistant (Machine Learning - Python)
- Predicted drug sales volume of 15 different pharmacies by training models with various regressors in the Sklearn package.
- Helped the company save 30% cost on inventory arrangement by implementing models with over 80% accuracies.

Bank of China, Xi'an, Shaanxi, China — December 2017 - January 2018
Business Analyst Intern
- Increased the speed of fetching clients' data more than 50% by modifying the database schema with SQL queries.
- Independently finished market analysis report, which got published in the State Journal of Banking & Finance.

PROJECTS

Python: Recurrent neural network - Deep Learning - Sentiment Analysis — October 2020 - December 2020
- Predicted people's attitude towards Amazon products by conducting Sentiment Analysis over millions of reviews.
- Processed the text and analyzed the result by using Spacy, Sklearn, PyTorch packages and frameworks in Python.

R: Machine Learning - Benefit Maximization and Predictive Model — February 2020 - May 2020
- Analyzed Airbnb property features correlated with high profit conversion rates and provided constructive recommendations.
- Applied machine learning to predict sales including geolocation, demographic, and public infrastructure resource data.
- Visualized different models by Variable Importance Plot and Receiver Operating Characteristic Curve.
- Used RandomForest, Caret, and Cowplot packages in R to approach the optimized result.

Arena: Simulation - Operations Optimization Model and Inventory Management — February 2020 - April 2020
- Built a workflow model for a hotpot restaurant by various modules, such as Assign, Decide, Process, Record, and Hold.
- Conducted PAN Analysis to give solutions for varied scenarios by assigning the resources differently.

R, Python: Time Series Data Decomposition and Demand Forecasting — February 2020
- Analyzed the unusual historical changes of air quality data in DMV area by collecting geolocation and demographic data.
- Decomposed time-series data, built Predictive model, and visualize it by using Fpp, Predict(R), and Sns (Python) packages.

SQL: Information System Design and Implementations — September 2019 - December 2019
- Designed the database schema for organizations/companies by using Lucidchart and practiced user cases by SQL queries.
- Connected the database (with sample data) to the PHP web application and ensured the functions of the system.

XINGXING "ARIEL" ZHANG

Phone: (859) 494-4079 | Email: zhangxi0612@gmail.com | 6468 S Wind Cir, Columbia, MD 21044

CAREER OVERVIEW

Highly motivated statistical programmer/analyst specializing in data collection, management, evaluation, analysis, interpretation, manipulation and reporting, with extensive domain knowledge in Healthcare and Insurance industry. A detail-oriented team member good at collaborating in cross-functional environment and ensuring timely deliverables.

QUALIFICATIONS

- Eight years of experience in multiple programming languages and analytical tools;
- Extensive experience in data analytics, data management and statistical modeling.
- Hands-on experience with software testing and implementation.
- Excellent communication, writing and presentation skills.

TECHNICAL SKILLS

Programming: Python, SAS/BASE, SAS Enterprise Guide, SAS Viya, SQL, Shell Scripting, Matlab, R, VBA, and Advanced Excel.

- **Certificates:** SAS Base and Advanced Programmer for SAS9.

Databases: Oracle, SQL Server, Netezza, DB2, and MS Access.
Operating Systems: Windows, and UNIX.

PROFESSIONAL EXPERIENCE

Programmer Advisor
January 2016 – present
General Dynamics Information Technology
Windsor Mill, MD
Working on HCQAR (Health Care Quality Analytics and Reporting) contract for Centers for Medicare & Medicaid Services

- Serve as the technical lead for AHRQ Patient Safety Indicators measure calculation and reporting.
- Gather and clarify business and technical requirements with internal and external stakeholders.
- Develop new code and correct/modify existing code to meet technical specifications.
- Write and update technical documentation such as user's manuals, product specifications and internal documentation.
- Prepare data for analysis and reporting including data collection, cleaning and quality management.
- Draft reports on analyses, findings, project progress, and present results to management and customers.

- Create software test plan and test CMS PSI SAS version and Windows version recalibrated software.
- Conduct statistical research on different methodologies aligned with CMS strategies.
- Mentor new hires and provide training.
- Maintain, expand and share domain knowledge and relevant technology.

Business Intelligence Developer October 2014 – January 2016
Claim Home Office, Management Info & Planning, GEICO Chevy Chase, MD

- Gathered reporting requirements from end users;
- Translated business requirements into technical requirements;
- Identified data sources, domain logics, queries, and the report datasets;
- Implemented domain logics using SQL and SAS;
- Developed the ETL process using SAS;
- Automated the ETL process using Shell Scripting in the Unix environment;
- Administered the reporting jobs in production including deployment, monitoring, and upgrade;
- Resolved any production failure in the on-call team;
- Generated execution reports for reporting jobs;
- Built performance tuning solutions;
- Provided training and consultation to end users;
- Contributed to domain knowledge building.

Statistical Analyst August 2012 – October 2014
Staff Development, GEICO
Chevy Chase, MD

- Developed SAS Macro codes to automatically extract and integrate data from different data sources;
- Sliced and diced the report datasets in Excel pivot table to provide diverse perspectives;
- Evaluated effectiveness of screening process of job applications based on bio-questionnaire model;
- Predicted turnover rate of potential new hires by performing logistic regression;
- Quantified quality of job applicants to accelerate the hiring process;
- Projected the training capability of regional teams based on historical application volume and predicted hiring yield;
- Supported the business planning of field service management by providing business insights and facts;
- Presented findings and recommendations to sustain continuous improvement of business planning;
- Performed and maintained reports and analyses in a multi-task and strict deadline environment.

Teaching Assistant August 2008 – June 2010

Department of Statistics, University of Kentucky
Lexington, KY

- Lectured statistical courses at the level of both undergraduate and graduate under the supervision of professors;
- Coached students to implement statistical methods using SAS, Matlab and Excel;
- Simulated various stochastic processes using Matlab;
- Developed log-rank test for non-parametric samples and Weibull samples in the survival analysis project;
- Performed multivariate regression and statistical inference in the project funded by department of agriculture.

Research Assistant August 2006 – August 2008
Electromagnetics Lab, University of Kentucky
Lexington KY
Thesis: Power loss analysis of stranded core transformer

- Summarized research work independently on magnetostatic field of transformers.
- Learned the physical structure of transformers and design requirements for power loss reduction.
- Applied data-intensive computing to model magnetostatic field using Matlab.
- Formatted and visualized magnetostatic field data using Matlab and other domain applications.
- Conducted what-if analysis on the transformer design in order to minimize the power loss.
- Documented the research topic, literature review, approach, results and design recommendations.

EDUCATION

M.S. in Statistics University of Kentucky, Lexington KY
2010
M.S. in Electrical and Computer Engineering University of Kentucky, Lexington KY
2008
B.S. in Biomedical Engineering Xidian University, China
2006

Xingyu Zhang

2023783477 | xingyu.z@outlook.com | 320 23rd ST S, Arlington, VA, 22202| https://github.com/gowarrior

PROFESSIONAL SUMMARY

I have hands-on work experience in java full stack (web) development. Also, I have done projects about IOS and Android development. I am a quick learner and ready to learn any required skills in tech field.

EDUCATION

Master's of Computer Science, George Washington University **Aug. 2017 - May. 2019**

Major: Computer Science Degree: Master of Science GPA: 3.87/4.00

Bachelor's of Software Engineering, Jilin University **Sep. 2011-Jul. 2015**

Major: Software Engineering Degree: Bachelor's of Engineering GPA: 3.5/4.00

Relevant Courses:

Java Programming, C Programming, C++ course design, Computer Principles & System Architecture, Data Structure, Oracle Database Software Practice, Design & Analysis of Algorithm, Unix& Linux Operating System

TECHNICAL SKILLS

Back end: Java, JavaScript, Python, Node.js, Struts, Hibernate, XML, Log4j, Junit, EasyMock, Mockito

Web Technology: HTML, CSS, AJAX, JSON, XML, Maven, Angular, React, JQuery

Frameworks: Spring, Spring MVC, Bootstrap, JQuery

Databases: Microsoft SQL, Mongo DB, MySQL, Postgresql

Tools: Linux, Windows, Vmware, AWS, Git, Github, Sublime (Atom/Vim), Apache Bench.

PROFESSIONAL EXPERIENCE

Software Development Engineer, Amazon **May. 2019–Now**

- Coding the VPC part of the Amazon Web Services web page (**React, Redux, React Hook)**
- Joined the design of the website with UI and seniors on the team
- Automation testing of the code using sixsense automation testing framework (**Javascript**)

Software Development Engineer, WaveLab.inc **June 2018 –June. 2019**

- Developed an Ecommerce Website which the has user log-in authentication, browser listing items, add item to the cart and checkout. (**Spring security**)
- Spring boot for API CRUD support using persistent data provided by MySQL database (**Spring boot, MySQL, Lombok**)
- Website pages on which user could browse the item, add to the card and checkout using Angular framework and the data from API (**Angular**)
- Did automation testing for the web application (**Selenium, Cucumber**)

Software Development Engineer, DYNC (**Python**, **Django**, **Postgresql**) **May 2018 – Aug 2018**

- Implemented a real estate web application which could show the listings of the real estates and realtors (Python, Django, HTML, CSS, Bootstrap);
- Built an admin page to manage the access level of the users and user could add or remove the listings, manipulate the realtor information (**PgAdmin**, **Postgresql**);

Software Development Engineer, Beiqi Foton Automobile Co., Ltd. **Aug. 2015-Aug. 2017**

- Developed Beijing Telematics platform and Jiangxi Telematics platform monitoring and displaying information of more than **30000** commercial vehicles including battery information, vehicle historical route replay and so on

- Followed Agile Methodology and test-driven Development in analyze, define and document the application.
- Constructed the module of the platform using **J2EE framework (JAVA)** using **Spring**, **Hibernate, Struts2, JSP**
- Developed POJO objects and used Hibernate as the Object-Relational Mapping (ORM) tool to access the persistent data from **SQL**.
- Implemented the platform as designed and customized it using **CSS, HTML, JavaScript**, **Bootstrap**
- Used **Junit** and Mockito to develop the Unit test cases.
- Used Maven and Git to manage the projects.

60 Riverpath Dr, Framingham, MA • Phone: (206)790-9017 • Email: zhangfengrui95@gmail.com

Fengrui Zhang

EDUCATION:

Worcester Polytechnic of Institute
Master of Science Computer Science 08/2018 – 12/2019
Master of Science Mathematics 08/2017 – 05/2019

South China Normal University
Bachelor of Science Mathematics 09/2013 – 06/2017

SKILLS:

Programming: Python, Java, Linux/Unix
Database: SQL, MongoDB, ElasticSearch, Redis
Big Data: Spark, Hadoop, Scala, Pig, Hive
Cloud: AWS, LSF
Web: Django, React, Javascript
Libraries: Tensorflow, Pytorch, Pyspark, Scitik-Learn, Matplotlib, OpenCV, Pandas, Socket
Technical Skill: Machine Learning, Software Development, Deep Learning, Algorithms, Probability, Automation pipeline, Statistical Analysis, Data Visualization, Streaming Processing
Soft Skill: Communication, Curious Mind, Obsession of Quality, Critical Thinking, Teamwork

WORK EXPERIENCE:

Whitehead Institute (affiliated with MIT) Cambridge, MA 02/2020 - Present

- **Data Scientist**

- **DREEM pipeline:** See project
  1. Designed automation data pipeline to handle large scale data and analytic problems
  2. Developed 5000+ lines Python back-end solution for data pipeline on distributed server, built tools to process and manage data alignment, automated data preprocessing and model training/evaluation process, monitored the process quality and efficiency, visualized data that researchers can tell biology mystery
- Existing system maintenance: automation test, software optimization, debug, tool building

Underwriters Laboratories Inc. (UL) Chicago, IL 05/2019 – 08/2019

- **Data Scientist Intern**

- **UL Safety Data Lake:** See project
  1. Built web-based platform (UL Safety Data Lake) for public safety
  2. Developed daily update scraper to implement ETL process for UL Safety Data Lake, including 17 million records from 10+ public website
  3. Applied object detection model to provide domain-specific solution for UL safety mark detecting from incident images, which helps brand team to identify fake UL mark and reduce their workload
  4. Participated in UL Safety Data Lake recommendation feature development
  5. Optimized the Safety Data Lake Search Engine by text classification and abbreviation detection
- **Optimized missing data problem for UL Safety Index:** See project
  Applied Master's Thesis machine learning-based data imputation method to impute missing value from existing data for UL Safety Index, which published in the 2019 UL Safety Index. See article
- **Collaborated** with UL Firefighter Safety Research Institute in Baltimore, MD as a data science consultant

China Galaxy Securities Guangzhou, China 09/2016 – 06/2017

- **Data Analyst**

- Daily trading data analytics and database maintain
- Data collection and conducted illegal trading detection by streaming data processing

60 Riverpath Dr, Framingham, MA • Phone: (206)790-9017 • Email: zhangfengrui95@gmail.com

ACADEMIC PROJECTS:

Master Thesis: Data Imputation (Python/ Pytorch) WPI, MA 01/2018 - 05/2019 See paper

- Developed a machine-learning based algorithms to infer missing data from existing data. Inspired by inductive matrix completion method, we came up with nonlinear version and deep learning version model, with activation function of sigmoid, Tanh, ReLU or cos, sin, which are able to handle more complex structure dataset and compensates linear method weakness
- Leveraged Pytorch and TensorFlow framework to build gradient descent process for need
- Defined metrics to measure model performance
- Applied on: Russell3000, new-items recommendation system and gene-disease prediction

Computer Science Course Project WPI, MA 01/2018 – 12/2019

- **Software Development (Java): Airline Reservation System**
  Built an airline travel reservation system for World Plane Inc., including basic functionality of one-way or round-way, departure airport, arrival airport, connection airport, seating class search and result sorting. Our team completed project including RAD delivery, prototype demonstration, test plan and test results
- **Machine Learning (Python): Fraud Prevention**
  Analyzed customs repayment ability with LendingClub Loan dataset, including preprocessing, implement machine learning algorithms such as decision tree, random forest, logistic regression, SVM and PCA
- **Artificial Intelligence (Python/Tensorflow): Autoencoder Research.**
  Implemented and researched on Autoencoder, which can represent high-dimensional representation by low-dimensional hidden layer. The method is used for training high-dimension representation by low-dimension representations, then reconstruct low-dimension representation to high-dimension, making hidden layer and original data as close as possible by iteration
- **Big Data Management (Hadoop/Spark): Data Engineering**
  Implemented MapReduce job on Hadoop, Spark with various tools such as Java, Hive, Pig, Scala and NoSql databases such as MongoDB and ElasticSearch
- **Database Management System (MySql/ Java): Medical Database Management System**
  Provided a software-based medical database management system with different login entrance for roles, which allows patients to make an appointment online, review medical records and write feedback for medical experience, doctors can view appointments and write/read medical records, etc
- **Business Intelligence (Tableau): Dashboard**
  Built BI dashboard for Public Safety
- **Computer Network (Socket/ Python): Server-Client Chat Room Project.**
  Built a Chat Room with UI by Socket Package, which is able to send broadcast messages or private messages

Xiangpei Kong

312-479-8482 xkong10@hawk.iit.edu

EDUCATION

ILLINOIS INSTITUTE OF TECHNOLOGY (GPA: 3.80/4.0) **Chicago, IL**

Master of Mathematical Finance and Public Administration *Expected to May 2021*

- **Coursework:** Quantitative Risk Management, Econometrics, Time Series Model, Algorithm Trading, Stochastic Process

TSINGHUA UNIVERISITY (GPA: 3.32/4.0) **Beijing, China**

Bachelor of Engineering in Civil Engineering *Aug. 2014 – Jul. 2018*

- **Coursework**: Calculus, Linear Algebra, Statistics and Probability, Mathematical Methods

SKILLS

- ***Programming languages***: Python (Pandas, Numpy, Matlibplot, Scipy, Scikit-learn), R, MATLAB, Octave
- ***Software:*** Microsoft Office Word, Excel and Power Point, Adobe, Tableau, IBM SPSS, SQL
- ***Languages:*** English (proficient), Chinese (native), Korean (elementary)

WORK EXPERIENCE

ALL-WEATHER QUANTITATIVE TECHNOLOGY **Chicago, IL**

Quantitative Researcher Intern *Apr. 2020-Aug.2020*

- Utilized machine learning algorithm to conduct multi-factor regression and conducted back-testing on historical data to avoid systematic risks of models
- Conducted factor analysis based on existing data by normalization, rolling and taking logarithm; designed 2 new factors whose IC values are above 0.09, which were selected into factor pool
- Aggregated financial data from multiple sources and cleaned data to design signal factors
- Compiled the single-factor test template including industry analysis, significance test and stratified regression test in Python

SHANXI SECURITIES COMPANY LIMITED **Shanxi, China**

Risk Management Analyst Intern *Dec. 2019 –Jan.2020*

- Evaluated 280+ corporate bonds on a daily basis; corrected and reported abnormal data to managers and clients
- Monitored and adjusted corporate bonds credit risk model based on corporate operating, security products performance, macroeconomic development and new policies
- Maintained client database and wrote weekly reports based on market and individual information; visualized results by R

PROJECTS

CME Group University Trading Challenge **Chicago, IL**

- Traded futures provided by CME Group on the CQG trading platform with $500,000 principal
- Applied mean-variance method on historical data and allocated principal to different assets, and reached 32% monthly return and ranked 50 among 400+ teams

Risk Management Project **Chicago, IL**

- Computed VaR and expected shortfall of portfolios with different distributed return including normally distributed return, student distributed return
- Applied time-series model like ARCH and GARCH to forecast volatility to examine the risk of portfolios

Algorithm Trading Projects **Chicago, IL**

- *High Frequency Trading*: researched on optimal execution strategies based on order flow, execution cost and imbalance in intraday trading
- *Pairs Trading*: used Auto Regressive model and Dickey-Fuller test to find out cointegrated stock pairs; realized algorithm in Python to determine optimal exit and entry time of cointegrated pairs and achieved Sharp Ratio of 0.56

Machine Learning Projects **Chicago, IL**

- *User behavior:* predicted the churn of a mobile game based on user features and states using logistic regression and bagging model; realized highest 89.87% accuracy in the test set
- *Wealth Management:* conducted reinforcement learning method to portfolio management and derived reward, action and value functions, and used G-learning to iterate optimal wealth value; achieved Sharp Ratio of 0.208

YIJIN WANG
(202) 644-3295 | fairywyj@gwu.edu | www.linkedin.com/in/yijinwang7

EDUCATION

The George Washington University Washington, DC
Master of Science in Statistics, Current GPA: 3.77/4.0 May 2020

- **Related Courses**: Linear Model, Data Analysis, Investment Analysis, Data Mining, Machine Learning, Statistical Inference, Multivariate Analysis, Statistical Computing

Qingdao University Qingdao, China
Dual bachelor's degree in Applied Statistics and Finances, GPA: 3.54/4.0, 3.47/4.0 July 2017

- **Awards**: Second place at Chinese National Math Model Competition; Academy first grade scholarship; The title of the Excellent Graduate and Outstanding Graduate

SKILLS

Technical: Proficient in R, SAS, SQL, Python and Tableau; Advanced Excel and PowerPoint skills
Certificate: CFA level one

PROJECT

Subject: Market Segmentation by Dividing Customers Washington, DC
Independent Work January 2021

- Explored raw dataset and visualized features, applied K-means to find the optimal numbers of clusters
- Used Principal Component Analysis to visualize cluster results and performed dimensionality reduction using Auto encoders

Subject: Credit Models Analysis Washington, DC
Independent Work April 2020

- To analyze significant factors affecting borrowers' paying on time, investigated current credit system of China like credit data sources of eight big shareholders of BaiHang Credit, discovered interesting credit data sources like social media behavior, online shopping records and education degrees
- Carried out statistical analysis with spline plot, histogram, boxplot from five aspects of borrowers: basic information like marital status, revenue, learning ability, social connections and consumption concept to
- Built an improved model with a higher AUC score based on a logistic model to analyze significant factors affecting borrowers' paying on time, visualized the results via plots like radar plot

Subject: Avito Duplicate Ads Detection with R Washington, DC
Independent Work February 2020

- Processed over 3GB's of data, created a list of feature transformations
- Built models with different classifiers such as logistic regression, LDA, QDA, SVMs, Random forest, extreme Gradient Boosting to obtain trained models, got corresponding AUC scores with validation dataset to assess model performance
- Achieved an optimal model by tuning parameters of XGBoost with Grid Search
- Obtained 89% prediction accuracy in test dataset

EXPERIENCE

CHINA CITIC BANK Qingdao, China
Data Analyst Intern July 2017—December 2017

- Organized and classified credit files, collected and managed credit data of clients
- Extracted, interpreted, and analyzed raw data and transformed into insights using MS Excel and SPSS
- Built predictive model — default of credit card clients using R
- Summarized daily report

ADDITIONAL INFORMATION

LEADERSHIP
Secretary, Civilization Supervision Society, Qingdao University June 2016—July 2017
Vice-minister, Student Union**,** Qingdao University September 2015-June 2016
INTERESTS: Hiking, Boxing and Traveling
GLOBAL VIEW: Mandarin (Native), English (Proficient)

Samiyu Mutiu Abiodun

LINKEDIN: https://www.linkedin.com/in/samiyu/
Email: msamiyu@my.apsu.edu
Address: 569 Grove Creek Avenue, Nashville, Tennessee
M: (931)-266-3105

Self-motivated and detailed-oriented Quantitative finance & Statistical/data analysis professional with progressive computing skills

EDUCATION

AUSTIN PEAY STATE UNIVERSITY
MS IN COMPUTER SCIENCE AND QUANTITATIVE METHODS
Graduation: May 2020
Clarksville, TN
GPA: 3.77/ 4.0

UNIVERSITY OF LAGOS
MSC in STATISTICS
Graduated: Dec. 2017
Lagos, Nigeria
Cum. GPA: 4.04/5.0

UNIVERSITY OF LAGOS
BSC in STATISTICS
Graduated: April 2014
Lagos, Nigeria
Cum. GPA: 4.37/5.0

CFA- Level 1 Candidate

COURSEWORK

GRADUATE
Machine Learning
Financial Mathematics
Financial Derivatives
Regression Analysis
Numerical Analysis
Interest Rate Modelling
Time Series Analysis

SKILLS

PROGRAMMING
Python, SQL, VBA, R, Power BI, Excel, Mathematica, SPSS

BEHAVIORAL SKILLS
Interpersonal, Team Player, Customer Services, Problem Solving, Multitasking, Strong verbal and Written Communication

TOOLS
Microsoft Dynamics NAV, Microsoft Excel, Microsoft Word, Microsoft Office, Microsoft Powerpoint

EXPERIENCE

QUANTITATIVE RESEARCH ANALYST(VOLUNTEER)| AUSTIN PEAY STATE UNIVERSITY
SEPT 2020- Present | CLARKSVILLE, TN : Building Predictive and Quantitative models for analysis.
Model optimization, validation and analysis using different performance metrics.
Machine Learning applications to finance: applications of algorithms for forecasting and analysis

SUMMER ACADEMY LEARNING – EXTERN | AT&T JUNE 2020 – JULY 2020 **:** Completed entry-level training in technology, finance, risk, machine learning, communication, and leadership.

GRADUATE RESEARCH/TEACHING ASSISTANT| AUSTIN PEAY STATE UNIVERSITY
AUGUST 2018- MAY 2020 | CLARKSVILLE, TN
Completed a project on optimizing extra compensation for organizations.
Researched financial derivatives, risks and stochastic models to assist supervisor with academic pursuit and presented results within few months to field experts at the 2018 Tennessee Academy of Science.
Conducted research on stock models & predictions, risk valuations and completed Spring - Summer Inter-Rater reliability analysis for Austin Peay State University, 2019 using SPSS.

COMPUTER SUPPORT SPECIALIST/TEACHING ASSISTANT | NPOWER NIGERIA
JANUARY 2017 – AUGUST 2018 | LAGOS, NIGERIA
Supported the team as an N-TEACH staff to execute various computing techniques.
Explain technical information in clear terms to approximately 50 non-technical individuals to promote better understanding within short period
Supported the head teacher as they rack and stack, install, commission and test routers, and training of students.

GRADUATE ANALYST | GRITTY MINDS CONCEPTS
AUG 2015- APRIL 2016| LAGOS NIGERIA
Oversaw the installation, administration and maintenance for the IT infrastructure including NAV configuration for more than 10 companies.
Troubleshot various financial problems and collaborated with staff and outside vendors to resolve complex risk, sales and purchase issues.

CERTIFICATIONS

- **Fundamentals of Quantitative Modeling – Univ. of Pennsylvania/Coursera- Nov, 2020**
- **Microsoft Technology Associate – Database Fundamentals : Microsoft- Aug, 2020**
- **SQL for Data Science – University of California, Davis/Coursera – June 2020**
- **Bloomberg Market Concept – November, 2019 :**
- **Applied Machine Learning: Algorithms – LinkedIn – August 2019**
- **Neural Networks and Convolutional Neural Networks Essential Training – August 2019**

PROJECTS/PUBLICATION

Optimizing Extra Compensation Via Rounding Rules for Higher Institutions(May2020)
Proposed a new compensation method beneficial for both employers and employees
Exploratory Data Analysis on COVID-19 (Corona Virus 2019) – March, 2020
Analyzed COVID-19 datasets with detailed inferences as at 11th of March, 2019
Predicting the Stock Price using Recurrent Neural Network (RNN) with Tensorflow.ps (JP Morgan Chase & Co. stock price data, 2019)
Used mix of machine learning algorithms to predict the future price of stock price dataset from 2010 -2019 using RNN with TensorFlow to help mitigate risks
Inference on Stress-Strength Reliability for Lognormal Distribution Based on Lower-Record Values (published - AMSE Journal 2017)
Designed and implemented a model for estimating the reliability of devices

Sean M. Brown

22896 Livingston Terrace Ashburn, VA 20148 | 703-869-8136 | seanmbrown21@gmail.com

PROFESSIONAL EXPERIENCE

Ernst & Young **McLean, VA**

Manager, Data and Analytics October 2020 - Present

- Leveraged an open source Susceptible, Infected, and Recovered (SIR) model to project commercial hospital capacity as potential facilities for military COVID-19 patients across 50 different US healthcare markets.
- Built ETL pipelines using Azure Data Factory for daily ingestion of public COVID-19 data sources into Azure SQL Data Warehouse to feed hospital capacity model.
- Performed correlation analysis and trained supervised learning models such as Random Forest and XGBoost to determine predictability power of potential COVID-19 signals.
- Conducted single-linkage hierarchical clustering to categorize different geographic area's hospital capacity and COVID-19 case growth to denote most impacted areas.
- Constructed a dashboard to identify areas across the country where Influenza and COVID-19 are rampant. Observed growth trends, historical immunization rates, and developed a score to rank areas most at risk.

Senior Consultant August 2018 – October 2020

- Developed senior leadership dashboards that leveraged Power BI, Azure Web Services, and SQL Server (86 data sources totaling 50 Terabytes of data).
- Automated ingestion of flat files into SQL Server using Python and developed stored procedures for data transformation.
- Analyzed multiple data sources to determine insights, KPIs, and assets in most need of repair based on multiple factors.
- Created a linear regression model that forecasted asset health scores based on age.
- Wrote a Python script that leveraged a job site API to pull thousands of job postings.
- Explored clustering algorithms and Natural Language Processing (NLP) techniques to match candidate résumés to job postings based on skills.
- Prepared business development documents on the firm's machine learning and artificial intelligence solutions.

Booz Allen Hamilton **McLean, VA**

Senior Consultant January 2015 – August 2018

- Developed a solution that uses modeling and simulation techniques to determine staffing needs for 22 foreign Army military sales organizations.
- Analyzed disparate data sets for development of an agent-based simulation model for forecasting workload and manpower.
- Developed a decision support tool, using Excel/VBA and R Shiny, to identify fleet equipment readiness for contingency operations.
- Identified important factors for sending Army assets to depot maintenance as part of a serialized fleet management task.
- Wrote technical documents, user guides, and standard tool update processes.

Consultant July 2013 – January 2015

- Designed a decision support tool for the Marine Corps to prioritize updating 2,520 fleet of vehicles.
- Built a tool from Excel/VBA analysis to identify vehicles for upgrade using over 5,000 data records.
- Performed quick turn analyses classifying the number of upgrades vehicles have already received and the number of upgrade kits to purchase to meet the program office requirements.
- Developed a discrete event simulation model that acted as a decision support tool for 10 Air Force bases to forecast executable flying schedules based on manning schedules, maintenance schedules, and aircraft availability.

EDUCATION

Georgia Institute of Technology December 2019

Master of Science in Computer Science (*Machine Learning Concentration*)

University of Virginia May 2013

Bachelor of Science in Systems Engineering

TECHNICAL SKILLS

- **Programming Languages**: Python (sci-kit learn, Numpy, Pandas, Jupyter), R (ggplot2, RShiny), Java
- **Relational Databases**: SQL, SQL Server, Teradata, Oracle
- **Business Intelligence Tools**: Microsoft Power BI, Tableau, IBM Cognos
- **Cloud Services**: Microsoft Azure (ML Studio, Cognitive Services, Databricks, Azure Data Factory)
- **Simulation and Modeling tools**: ExtendSim, AnyLogic, NetLogo, Arena Simulation, @Risk
- **Web Development**: HTML/CSS, Javascript, JQuery, XML
- **Version Control**: Git/Github
- **Security Clearance**: Top Secret

BILL CHEN, CFA, MBA

25342 Diligence Ct | Aldie, VA, 20105| T: 917-621-7682 | wec37@georgetown.edu

CAREER HIGHLIGHTS

An initiative taking problem solver. Proven track record of handling quantitative modeling and data science projects. Highly skilled in employing supervised and unsupervised machine learning techniques to dissect problems and automate decision making process. Adept at manipulating large amount of data, discovering patterns and presenting insightful analyses. Expert in several programming languages such Python, VBA SQL and SAS. Valedictorian of 2018 Georgetown MBA class.

- ✓ Supervised and unsupervised Machine Learning
- ✓ Data manipulation/Model feature engineering
- ✓ Data pipelines/automation
- ✓ Cross-sectional/time-series analyses
- ✓ Data presentation/Dashboard building
- ✓ Team Building/End to End delivery

Key skills: sklearn, Pandas, Numpy, Seaborn, Randomforest classifer and regressor, logistic regression

PROFESSIONAL EXPERIENCE

WGL, Springfield, VA
Senior Business Analyst (2019 – Present)

- Apply machine learning and statistical techniques such as SVM, KNN and Lasso regression to build predictive models and subsequently maintain and research enhancements to the models
- Perform R&D and exploratory analysis based on the formulated business problems and create interactive dashboards to report results
- Design, implement and optimize model testing procedures and perform sensitive and stress analyses
- Work in a consultative role as well as in partnership with business units and provide briefing to senior management on the analytical results and their implications for the business
- Notable projects:
  Capital project cash expenditure forecast: utilize Python's machine learning packages to build a quantitative forecast model to accurately predict monthly cash outflows. The project also saw extensive usage of pipeline process to streamline the modeling procedures and employment of GridSearchCV cross-validation to fine tune the model's hyper-parameters. The new model scores an average monthly error rate of 5-2% compared to 35-20% from the old methodology.
  Inventory parts usage forecast: a data science project designed to provide a framework for better parts purchase and management. The analysis helped reduce the company's inventory cost by $6 million annually.
  PI Billing Cycle dashboard: an interactive dashboard built in Excel that dissects billing cycles for different contractors and jurisdictions and presents comparative KPI analysis
  Revamped ACES reporting process: utilize Python's powerful Pandas dataframe package to process and cleanse raw database data and create a reporting pipeline to automate the monthly reporting process. The new program not only cuts the once lengthy week long turnaround time down to a few hours but also makes the once rigid report structure more flexible

WGL Energy Services, Tysons, VA
Sr. FP&A Analyst(2017-2019)

- Prepare, analyze and evaluate financial information associated with budget, forecast, planning and control
- Work in a consultative role as well as in partnership with business units during annual budget process
- Perform highly complex analysis that requires a review of a variety of factors, an understanding of current business trends, in-depth knowledge of organizational objectives and in-depth knowledge of the company
- Carry out firm wide debt burden analysis to facilitate bond market access
- Projects lead to enhance efficiency for the forecasting and reporting systems including:
  Electric forecast model modernization project: utilize VBA codes to eliminate time-consuming data input process and cut forecast time from two weeks down to one
  Capex database: utilize VBA and Python script to manipulate a database of 500 capital projects. Eliminate time-consuming data-querying process and achieve direct database-to-report operations

WGL Energy Services, Tysons, VA
FP&A Analyst (2012 –2017)

- Synthesized operational data, identified anomalies and analyzed the driving forces behind variances and achieved 4 years of error-free reporting and forecasts

- Drove annual budgeting process and conducted quarterly forecast revisions ensuring close alignment with strategy
- Notable projects:
  Renewable energy budget model for a portfolio of 270 solar projects: a highly sophisticated model that not only consolidates financial budgets and forecast but also presents a dashboard populated with dynamic graphs and key metrics

Comcast, Baltimore, MD
Financial Analyst (2010 –2012)

- Supported the creation of operating budget that integrated four operational activities into cohesive financial plans
- Synthesized operational data, identify anomalies and analyze the driving forces behind variances
- Analyzed complex sales trend and account renewal information for a number of product lines and synthesized them into financial forecasts
- Supported monthly closing process and generate necessary financial reports for management's review
- Provided periodic maintenance on customer account data base which contained millions of subscribers

UM Charles Regional Medical Center, LaPlata, MD
Financial Analyst (2008 – 2010)

- Worked closely with business units to analyze operational results and identify future trends and assemble the data into financial forecasts and annual budgets.
- Conducted statistical analysis on hospital's operational cost data to discover innovative ways to save costs and improve financial performance. Achieved $3 million waste reduction over two years.

Prudential Financial. Newark, NJ
M&A Financial Associate (2006 – 2007)

- Conducted detailed financial analyses and complex merger and LBO modeling.
- Assisted and guided the clients through the due diligence process
- *Notable Transactions:*
  Project Wadi: acquisition of a fixed income fund with $100M in total consideration
  Project Lonestar: acquisition of Texas based equity/derivative fund with $109M in total consideration

Bear, Stearns Co. & Inc. New York, NY
Investment Banking Analyst (2004 – 2006)

- Provided analytical support such as financial modeling, bond pricing and refunding analysis
- Closed several high profile bond transactions totaling $1.3 billion.
- Participated in meetings to pitch creative financing ideas and guided clients through bond sales process
- *Notable Transactions:*
  $579M Fort Benning & Camp Merrill Military Housing Acquisition Project
  $288M New York State Urban Development Corporation 2005 Series A Refunding
  $497M Massachusetts Water Resources Authority 2005 Series A and B Refunding

EDUCATION / ASSOCIATIONS

Georgetown University, Master of Business Administration, GPA: 3.91/4.00, Valedictorian of Class 2018
The Wharton School, University of Pennsylvania, Bachelor of Science Economics
CFA, Member of CFA Washington D.C. Chapter
Member of Beta Gamma Sigma Honor Society

SOFTWARE SKILLS

Programming language: Python, VBA, SQL, SAS
Microsoft Office Suite: Excel, Word, Powerpoint
Enterprise software: Hyperion EPM, Power BI

PRAKASH BHATTA

(469) 203 9804 prakash.bhatta@gatech.edu
22023 Broadway Ave, Clarksburg MD 20871

Software engineer looking for a position as ML/AI Engineer and Data Scientist position.

EDUCATION

Georgia Institute of Technology Graduation: December 2020
Master of Computer Science (GPA: 3.9)

- Course works: Machine Learning, Knowledge Based Artificial Intelligence, Machine Learning for Trading, Data and Visual Analytics, Health Informatics, Human-Computer Interaction, Database Systems, Software Development, AI Ethics and Society, Education Technology.

Mercyhurst University Graduation: May 2012
Bachelor of Arts (GPA: 3.4)

- Major: Mathematics with minor in Computational Science & Economics

UNIVERSITY PROJECTS:

Graduate:

- Development and implementation of different supervised, unsupervised and reinforcement learning algorithms to solve classification, clustering, optimization, predictive analytics problems.
- Developed AI agents to solve human IQ test and localization problems.
- Integrated ML algorithms and created algorithmic trading bot to trade stocks by analyzing various technical/fundamental indicators.
- Developed algorithms to gather/clean the data, do exploratory analysis and then used it to create ML models and integrated them on the apps.
- Developed and designed a database for a warehouse supply chain management and integrated it on a webapp.

Undergraduate:

- Implemented Monte Carlo Simulation to performed atomistic simulations to compute and study the behavior of energy bands in Graphene structure
- Statistical modeling and analysis of nutrient levels in an experimental wastewater-fed algae production system
- Mathematical and Computational modeling on Linear and Non-Linear Models, Drug dosage models, SIR model, SARS model, Predator- Prey Models, Competition models

WORK EXPERIENCE:

Software Engineer Lead **Wells Fargo Advisors (09/2017 – Present)**

- Manage and oversee a team of devops engineers to automate WFA application's build and deployment processes.
- Design and engineer CI/CD solution as per the need of WFA applications team need.
- Collaborate with the leaders and engineers to drive best practices and address any gaps in current solution and enhance the solution accordingly.
- Lead, drive and execute migration efforts to make sure all the deliverables are met and report progress to leadership.

Software Engineer **Consultant (09/2012 – 09/2017)**
Worked as a software engineer consultant for clients - Wells Fargo Advisors and Westfield insurance where my responsibilities included:

- Manage and engineer automated build & deploy solutions for .Net, Java, Database applications.
- Develop a stack test application to determine servers' configurations, health and states prior handing it over to application team.
- Engineering puppet blueprints to provision and manage infrastructure for both VM and cloud.
- Responsible for upgrades, testing and re-engineering CI/CD solutions to support new infrastructure.

- Worked with app teams, projects managers and testers to develop strategies around syncing test environments to be like production environments.
- Training teammates on CI/CD best practices, SDLC processes and Change Control processes.
- Lead all non-production and production change implementations and optimize them by automating the existing manual processes.
- Designed processes for the best practices of Source Code Management, Build Engineering, Environment Configurations, Change Control, Deployment Automation and Release Management

Mathematics/ Economics Tutor

SYSTEMS PROFICIENCY

- Python, Java, C++, JS, Scala, Hadoop, AWS, Azure, Matlab, Fortran, Windows, Linux, SQL, GIT, Microsoft Office Packages
- Python libraries include but not limited to numpy, pandas, sklearn, opencv

LANGUAGE PROFICIENCY

- Proficient in English, Nepali and Hindi

Poulami 'Lami' Ghosh

(240) 817-4124 ● poulami.ghosh@rhsmith.umd.edu ● https://www.linkedin.com/in/poulami-ghosh-3012/
● https://www.hackerrank.com/pghosh3012

EDUCATION

Robert H. Smith School of Business, University of Maryland — **College Park, USA**
Master of Quantitative Finance (GPA:3.73/4.0), GRE: 164 Q,161 V — August 2019-May 2021

- Graduate Teaching Assistant: Financial Data Analytics, Machine Learning in Finance, Internal Audit
- Relevant coursework: Financial Econometrics, Financial Mathematics, Financial Programming, Derivatives, Quantitative Investment Strategies, Fixed Income, Financial Engineering, Text Mining

Jadavpur University — **Kolkata, India**
Master of Arts, Major**:** Economics and Econometrics (GPA:8.18/10.0) — July 2017-June 2019

- Relevant coursework: Game Theory, Operation Research, Advanced Econometrics

Jadavpur University — **Kolkata, India**
Bachelor of Arts, Major: Economics and Econometrics (GPA:8.22/10.0) — July 2014-June 2017

- Relevant coursework: Microeconomics, Macroeconomics, Applied Economics, International Trade

SKILLS

- Technical: Advanced Excel, Python, SQL, Bloomberg, Gephi, SAS (basic), Power BI (basic)
- Nanodegrees: Currently pursuing Artificial Intelligence in Trading (Python) program (Udacity)

EXPERIENCE

FINRA — **New York, USA**
Data Analytics and Technology Intern — January 2021– Present

- Deliver enhanced regulatory program based on business model specific risks embedded within broker/dealer community and construct appropriate risk measurement, management and monitoring capabilities with use of analytics and dashboard visualization using Power BI and SQL

FDA — **Maryland, USA**
Risk Project Research Assistant — January 2021– Present

- Examine advanced technologies as a path to improving flexibility and reliability of domestic drug manufacturing: designed batch/continuous manufacturing NPV stochastic simulation model to analyse enterprise risk management of such processes using pharmaceutical industry fundamentals from IBIS World and WRDS

Freddie Mac — **McLean Virginia, USA**
Credit Risk Modeling Project Intern — August 2020 –October 2020

- Cleaned and manipulated 21 million Freddie Mac Single Family loan level dataset for modeling the likelihood of mortgage default and estimating loss severity due to hurricane risk using FEMA and FHFA data, traditional statistical and ensemble machine learning techniques (Python)

The World Bank — **Washington DC, USA**
Data Science Project Intern — June 2020 – August 2020

- Researched characteristics of Global Value Chains and analyzed impact of COVID-19, border closures and supply chain disruption on GVCs and stock market using country-level databases on firms from FactSet, Bloomberg and Worldscope
- Created supply chain network graphs with Gephi software to visualize input-output linkages of firms, industries, regions and deployed Python packages to clean, process and visualize macroeconomic data and firm financial statements

Responsible Charity NGO — **Kolkata, India**
Mentor — November 2017 – May 2019

- Taught English language to Scholarship students and spearheaded programs to develop overall curriculum, financial budgeting and psychological wellbeing of students through continuous community visits
- Raised over $1000 funds through social media marketing for Chic Clothes for Charity program and organized other cultural events to support schooling and sponsoring of 40 talented underprivileged children

Smith Master Students Association UMD — **College Park, USA**
Executive Vice President — November 2019 – December 2020

- Supervise SMSA-recognized clubs and act as a liaison with Smith faculty, administration and 500 Masters students

QUANTITATIVE PROJECTS

- Sampled 35 million loan level GSE dataset to estimate and validate survival models of mortgage default and prepayment, simulated cashflows affected by stochastic processes and valued Fannie Mae CAS CRT instrument
- Extracted and preprocessed 48,000 tweets on Apple, Tesla, and Netflix to understand topic relationships and Twitter user sentiment, using unsupervised NLP techniques topic modeling and word embeddings (Python- NLTK, gensim)
- Generated trading strategy based on a momentum indicator and explored alpha research process of breakout strategy in Artificial Intelligence for Trading (Python) project

William "Will" Andrews

(615) 886-8625 | 6915 Maple Avenue, Chevy Chase, MD 20815
william.andrews@marylandsmith.umd.edu | www.linkedin.com/in/willand1

EDUCATION

Robert H. Smith School of Business, University of Maryland **College Park, MD**
Master of Finance, GPA: 4.0 August 2020 - December 2021

- Plus 1 Scholar
- Machine Learning in Finance, Quantitative Investment Strategies, Financial Data Analytics, Hedge Fund Management, Big Data in Finance, Market Microstructure

Robert H. Smith School of Business, University of Maryland **College Park, MD**
Bachelor of Science, Major: Finance, GPA: 3.6 August 2017 - December 2020

- Semester Academic Honors: Spring 2018 through Fall 2020
- CP Student Investment Group: Facilitated weekly discussion of ~100 students on equity trading decisions

GRADUATE PROJECTS

- **Machine Learning in Finance:** Employed Python to evaluate the robustness of risk-adjusted excess returns for various factors with model validation techniques, machine learning approaches applied include Neural Networks, Random Forest, Ridge Regression, and Lasso Regression.
- **Optimal Portfolio of Industries:** Through the lens of the Fama-French 12 Industry Portfolios, calculated mean excess returns per industry for comparison, computed the minimum variance portfolio for the 12 industries, then calculated the weights of the portfolios with the highest Sharpe Ratio.

WORK EXPERIENCE

Nomad Digital Inc **Rockville, MD**
Financial Analyst March 2020 – January 2021

- Streamlined workflows via *.CSV import configurations on ERP system, allowing for the automation of journal uploads, requisitions, etc. from Excel data as opposed to manual entry.
- Implemented Blanket POs for recurring charges in order to reduce the downtime in the PO approval queue and ensure timely, periodic payments to suppliers.
- Improved department procedural efficiency by automating Excel Workbooks with formulas to drastically reduce effortful calculations, automatically sort / classify data, and overall save time.

Home Genius Exteriors **College Park, MD**
Field Canvasser August 2018 – April 2019

- Secured profitable leads on a daily basis to surpass quotas through conveying professionalism via demeanor, body language, and tone.
- Leveraged neighbors' social network to generate company awareness and establish brand credibility within different communities, leading to an extensive influence state-wide across Maryland, Virginia, & D.C.

LEADERSHIP EXPERIENCE

Pi Kappa Alpha, New Member Recruitment & Housing Committee April 2017-December 2020

- Expanded membership by 30% from events and social networks to continue growth.
- Facilitated increasing the number of houses occupied by members by 400%.
- Raised >$50,000 for Cystic Fibrosis and served 100's of community members via A Wider Circle.

DISTINCTIONS

- Technical: Excel (Data Analysis, Solver, etc.), Python, Scikit-Learn, Java, CSS, HTML, MS Office Suite
- Interests: Equities & Derivatives Trading (Personal), Soccer & Lacrosse, Fishing

Yiqing (Vanessa) Zhou

465 N Park Drive #2409, Chicago, IL 60611 | 610-573-7884 | vanessazhou@uchicago.edu

EDUCATION

THE UNIVERSITY OF CHICAGO — **Chicago, IL**
Master of Science in Financial Mathematics — **December 2020**

- Courses: C++, Financial Time Series, Multivariate Data Analysis, Fixed Income Derivatives, Regression Analysis and Quantitative Trading Strategies, Mathematical Market Microstructure, Stochastic Calculus, Numerical Methods, Option Pricing, Portfolio Theory & Risk Management, Stochastic Processes, Python

LEHIGH UNIVERSITY — **Bethlehem, PA**
Bachelor of Science in Mathematics; Bachelor of Science in Finance — **May 2019**

- Courses: Probability, Linear Models in Statistics, Linear Algebra, Multivariable Calculus, Real Analysis, SAS, Java
- Extracurricular: Led *Gender in STEM* research project to support female development in STEM careers

SKILLS

Computing: Python, C++, R, SAS, Java, PL/SQL
Knowledge: Data Analytics, Statistical Modelling, Time Series Analysis, Quantitative Trading, Cryptocurrency

EXPERIENCE

CMT DIGITAL — **Chicago, IL**
Quantitative Trading Summer Intern — **June 2020 – September 2020**
Academic Intern - University of Chicago Project Lab — **April 2020 – June 2020**

- Designed algorithm in Python to automate Bitcoin futures portfolio trading strategy across exchanges (CME and ICE) by quantifying trading opportunities, determining optimal position sizing, and pricing bid/ask quotes to trading system
- Modeled calendar spreads of BTC futures by fitting mean-reversion processes; refined strategy with model parameters
- Developed an analytical tool in Python to web scrape and process blockchain data, track Ethereum wallets' coin flows, and analyze hourly aggregated volumes of top DeFi token holders to support crypto trading
- Implemented machine learning methods (Decision Tree, Random Forest, HMM and PCA) in Python to research key factors that predict returns of Bitcoin perpetual contracts and Bitcoin spot and improve market-neutral trading strategy
- Structured and cleaned crypto historical data into data frame; visualized and analyzed data to gain insights

MIZUHO SECURITIES — **New York, NY**
Quantitative Researcher - University of Chicago Project Lab — **October 2019 – January 2020**

- Built stochastic volatility models in Python, and implemented calibration methods to fit volatility smile on Bloomberg
- Developed CVA pricing models of FX options with Black-Scholes and SABR models, and generated expected positive exposure via Monte Carlo simulation in Python; calculated Counterparty Credit Risk with hypothetical counterparty
- Adjusted models based on various assumptions such as spot/forward premium and different currency pairs; analyzed CVA's dependency on FX models under these different assumptions

LIBERTY MUTUAL INSURANCE — **Beijing, China**
Actuarial Intern — **May 2017 – June 2017**

- Reduced the time for assigning commission rates to individual insurance plans by 50%+ by developing an automated commission-adjusting model
- Used PL/SQL Developer to flag and remove unmatched entries from insurance database due to coding inconsistencies

PROJECT

CLOUDQUANT — **Chicago, IL**
Alpha Mining on Equity Options Datasets (Python) — **December 2020**

- Processed large options datasets to research and generate features (volatility skew, put/call ratio) of 2000+ stocks daily
- Tested features for statistical significance and identified features with predicting power for future stock price movements; constructed long-short portfolio trading strategies and back-tested in Python and CloudQuant AI.

UNIVERSITY OF CHICAGO — **Chicago, IL**
Pair Trading Strategy with Co-integration Approach (Python) — **May 2020**

- Developed and back-tested strategy that identifies pairs of stocks with co-integration test; reduced divergence risk by adding news sentiment data analytics and calculating risk exposures correlation based on Fama-French 5-factor model

Matching Engine and Exchange Simulator (Python) — **December 2019**

- Designed a matching engine using price/time algorithm in Python to manage market, limit and IOC orders; tested engine by building an exchange simulation environment where 100 traders randomly place, modify or cancel orders

TRINH VU

Woodbridge, VA | kieutrinh326@gmail.com | 571-485-5010
LinkedIn: https://www.linkedin.com/in/trinh-k-vu/ | Github: https://github.com/tkyuvu

EDUCATION

The George Washington University, Washington, DC — Anticipated May 2021
Master of Science, Data Science | GPA: 4.0
Relevant Coursework: Machine Learning, Data Warehousing, Data Mining, Advanced NLP, Data Visualization, Cloud Computing, Time Series Analysis and Modeling

University of District of Columbia, Washington, DC — Aug 2016
Bachelor of Science, Chemistry | GPA: 4.0

TECHNICAL SKILLS

Programming Languages: Python, R, SQL
Machine Learning & Applications: Data Preprocessing, Supervised Learning, Unsupervised Learning
Tools: Jupyter Notebook, VS Code, Pycharm, Sklearn, NLTK, Spacy, RStudio, Google Visualization API, Tableau, Power BI

TECHNICAL PROJECTS

Carbon Monoxide Forecast | Python — **Sep – Dec 2020**

- Forecasted the carbon monoxide level for outdoor air using multiple linear regression and Time Series models: Holt-Winters, ARMA, and SARIMA
- Mean Square Error was used to evaluate the models on the training data. SARIMA is the best model with MSE of 0.365 for residual errors. The forecast of the test set was performed using the best model SARIMA yielding MSE of 0.356 for forecast errors.

World Suicide Visualization | Tableau — **Jan – May 2020**

- Built visualization for suicide data using Tableau. Socio-economic impacts on suicide rate of 43 countries from 1995 to 2013 were analyzed from the visualization.
- The average suicide rate decreased from 16 to 11 (number of suicides per 100,000 population).
- The suicide rate of men are 4 times higher than the suicide rate of women.
- Alcohol consumption, use of cell phones and internet, and unemployment rate have positive correlations with suicide rate, while higher education completion rate, GDP per capita, and number of physicians have negative correlations with suicide rate.

Prediction of Readmission and Treatments for Diabetic Patients | Python — **Jan – May 2020**

- Built machine learning models Logistic Regression, Decision Tree Classification, Random Forest, Gradient Boosting, XGBoost, and Multilayer Perceptron to predict readmission and treatments for diabetic patients. The important features that impact the prediction were age, gender, race, number of labs, number of procedures, and alcohol level in blood.
- For the prediction of hospital readmission, the best model was Gradient Boosting with F1 score of 88.4%. For the prediction of treatments, the best model was Random Forest with F1 score of 77.1%.

Google Play Store Apps Analysis | Python — **Oct – Dec 2019**

- Built different predicting models to predict the Rating of Google Apps. Rating variable was encoded into categories to perform classification models. Models included Logistic Regression, Decision Tree Classifier, and SVM with Logistic Regression having the highest accuracy score of 72%.

Prediction of Cardiovascular Disease | R — **Oct – Dec 2019**

- Built Decision Tree Classification to classify cardiovascular disease with F1 score of 73%.
- The important features impacting the cardiovascular disease were blood pressure, age, cholesterol level, active level, and smoking habit.

RELEVANT WORK EXPERIENCE

TIME Systems – Dumfries, VA
Data Science Intern — **July 2020 – Present**

- Analyze and evaluate company performance according to CMMI metrics in order to help the company achieve CMMI Lv3 certification.
- Build visualizations for the performance report using Power BI.

Yulan Fang
3124 NE Norton Ln Issaquah, WA 98029
(214) 533-3569 – yulanf25@gmail.com

EDUCATION

Binghamton University, State University of New York — Expected May 2021
PhD in Economics
Concentration in Applied Econometrics, Labor Economics, Developing Economics
Cumulative GPA: 3.7/4.0

University of Texas at Austin — May 2014 - August 2015
MA in Economics
Cumulative GPA: 3.7/4.0

Southern Methodist University — August 2013 – May 2014
Applied Economics and Predictive Analytics (MSAEPA)
Cumulative GPA: 4.0/4.0

Zhejiang University of Finance and Economics — Zhejiang, China
BA in Finance Management — May 2012

Skills

- Python and Machine Learning
- R
- SQL
- STATA
- MATLAB
- Tableau

Relevant Experience

Student Researcher — August 2017 – Present
Department of Economics, Binghamton University, Binghamton, NY

- Analyze effects of premarital cohabitation experience on marriage stability and marriage quality using the Propensity Score Matching method (KNN and other matching methods) and survival model with Chinese individual-level complex survey data that contains more than 30,000 observations
- Explore whether certain personal preferences could impact individual and household's financial and health related decisions using individual-level data
- Estimate influences from regional gender ratio and household's gender preference on each family's saving decision using tests of selection on observables and the PSM method with two large observational data sets
- Propose a project about measuring the impact from lockdowns caused by COVID – 19 on E-Commerce through changing individual's purchase preference in China using Differences-in-Differences method
- Examine the relation between obesity and personal time preference implementing OLS regression and factor analysis

Adjunct Lecturer — August 2020 – Present
Applied Development Economics, Binghamton University

- Illustrate classic economic models to lay a solid theoretical foundation for students to build econometric models and solve microeconomic problems
- Introduce linear regression model and offer opportunities for the students to estimate econometric models using R with simplified data to solve real-world problems and test the hypotheses
- Explain commonly used identification methods, including RCT for experimental data and Differences-in-Differences, Instrumental Variables, Regression Discontinuity Design and Propensity Score Matching for observational data, so that students have the basic idea of how to effectively control factors and identify the causal relationship between two key variables of interests
- Provide step-by-step guidance to students' team projects about discussing and presenting academic papers studying economic impacts from COVID-19 and other trending problems in developing regions, as well as encourage innovative ideas in related fields

Teaching Assistant — August 2015 – May 2020
Department of Economics, Binghamton University, Binghamton, NY

- Planned and led discussions for PhD-level Statistics class to discuss students' questions about probability, distribution, and hypothesis testing
- Organized and held weekly sessions for more than 70 students to improve their skills in building regression models and estimating models with R and STATA for senior-level Econometrics class
- Assisted students better understand and apply economic models, such as searching models which take the market frictions into consideration, in order to deal with problems in labor markets
- Ensured various aspects of the course were able to run efficiently by collaborating with faculty members on creating course syllabi, preparing the programming aspect of the class, making the exams, as well as grading students' homework, exams, and papers

Lecturer — February 2012 – May 2013
New Oriental Education & Technology Group Inc, Zhejiang China

- Taught one-to-one VIP TOEFL listening courses to customers of different ages
- Became a qualified teacher in 3 months and began giving training sessions to new tutors after being a part of the team for 6 months
- Communicated with customers regularly to avoid any misunderstandings and customized my teaching plans accordingly

Leadership and Volunteer Experience

Care Projects for Autistic Children — September 2008 – September 2009
Zhejiang University of Finance and Economics, Zhejiang China

- Voluntarily educated and accompanied students in special organizations for autistic children on a weekly basis
- Designed and conducted a simple survey on citizens' understandings about autism in children, and wrote a high scored report based on data collected from interviews of around 150 people in Hangzhou, China

Students' Union Vice President — September 2009 – September 2011
Zhejiang University of Finance and Economics, Zhejiang China

- Established and lead a team responsible for planning and executing more than 20 academic and non-academic campus activities
- Hosted or gave speeches in several school-wide activities and conferences like the school's Drama Festival and Student Congress
- Directed regular meetings to discuss and decide every week's assignments for the planning department

Qingxuan (Dorothy) Li
Atlanta, GA 30305
(608) 6090791 | dorothyyy.li@icloud.com
https://www.linkedin.com/in/qingxuanli/

SUMMARY

Data enthusiast with an interest in seeking secrets behind numbers to enable data driven decision-making and strategy. Interested in an emerging technology, sharpening business insights and analytical skills by receiving a dual master's degree in Actuarial Science and Analytics, seeking a **Data**-related full-time position.

PROGRAMMING AND SOFTWARE SKILLSET

Programming: **Python**, **R**

Database Management: MS **SQL**, Cassandra, MongoDB, Hive, AWS Redshift, S3, Glue, Apache Airflow

Big Data: Apache Spark**,** MapReduce, Hadoop, Cloud Computing

Visualization: Power BI, Tableau

EDUCATION

Georgia State University, J. Mack Robinson College of Business **Atlanta, GA**
Master of Science in Data Science and Analytics May 2020
Master of Actuarial Science

University of Wisconsin - Madison, College of Letters and Science **Madison, WI**
Bachelor of Science in Mathematics September 2013 - May 2017
Bachelor of Science in Statistics

WORK EXPERIENCE

Georgia State University, Institute for Insight **Atlanta, GA**
Graduate Research Assistant August 2018 – Present

Text Mining Culture Research over Glassdoor Reviews:

- Crawled data from Glassdoor using **Python** (Selenium), built and cleansed database of unstructured streaming data through pipeline between Python and **MongoDB** to store and retrieve data in the future on school cluster and GPU
- Performed text analytics on public-listed company reviews and 10K files using NLP techniques such as unsupervised and semi-supervised topic models, sentiment analysis, and n-grams to understand culture topics and culture trends

Starr Producer Score Project

- Performed ETL using **SQL queries**, data cleaning, imputation, outlier treatment using **Python** (K-means Clustering)
- Developed a producer scoring tool using **Machine Learning** techniques to optimize business performance

SunTrust Checking Account Attrition Analysis

- Cleansed, aggregated and transformed 4.5M+ entries with 90+ features into 380K using Python (NumPy &Pandas)
- Developed customer segmentation models for deposit attrition using Machine Learning techniques
- Provided feasible suggestions for customer service and marketing team to increase the efficacy and effectiveness

ShanCha Inc. **New York, NY**
Digital Marketing Analyst July 2017 – May 2018

- Enhanced brand awareness, developed and managed company's web presence through performing analysis on websites, utilizing **Google Analytics** to improve traffic and clicks
- Established a database using **MySQL** to store customer demographic and transactional information

PROJECT EXPERIENCE

Music Streaming Data Pipelines Project: May 2020 – June 2020

• Developed a relational database using PostgreSQL to model user activity data for a music streaming app

• Automated the ETL pipeline and creation of data warehouse using Apache Airflow

• Transformed data from various sources into a star schema optimized for the analytics team's use cases.

Telco Customer Churn Project: January 2019 – March 2019

- Developed a classification framework using machine learning models(Logistic Regression, Random Forest, SVM)
- Awarded **Best Data Visualization (1 out of 15)**

PROFESSIONAL EXAMS

SOA Exam 1/P, Exam 2/FM, VEE Economics/ Corporate Finance/ Applied Statistics

GARP FRM I passed, FRM II candidate

Mengyuan (Bella) Jin

(253)282-0604 | mjin419@umd.edu | https://www.linkedin.com/in/mengyuan-bella-jin/

EDUCATION

University of Maryland, Robert H. Smith School of Business College Park, MD
Master of Science in Information Systems | Major GPA: *3.79*
Coursework: Database Management; Predictive Analytics; Data Mining; Big data and Machine Learning; Computer Simulation

University of Maryland College Park College Park, MD
Bachelor of Arts in Applied Economics (Pre-pharmacy track) | Major GPA*: 3.45*
Coursework: Econometrics; Microeconomics and Macroeconomics; Business Statistics; Calculus; Applied Physics; Microbiology

SKILLS

Database/Big data: SQL, Spark, AWS, Apache Pig
Programming: Python (Pandas, Matplotlib, Numpy, Scikit-learn, Seaborn), R (Tidyverse, Caret), Arena Simulation
Machine learning/Statistics: Linear/Logistic/Ridge/Lasso Regression, A/B Testing, Hypothesis Testing, Naïve Bayes, SVM, KNN, K-means, NLP, Random Forest, XgBoost
Business Intelligence: Tableau Desktop Specialist Certification, Google Analytics Individual Qualification, Microsoft Office (Word, Advanced Excel, PowerPoint)

INTERNSHIP EXPERIENCE

Panum Group LLC. Bethesda, MD
Market Research Analyst *July 2020 – Jan 2021*

- Researched opportunities by downloading CSV files and filtered by core competency to narrow down matched opportunities using SQL query language and Python; Built 2021 & 2022 Pipeline for DoD sector.
- Managed company pipeline using database management tool - Capture2Proposal, achieving 20% quarterly increase on company revenue.
- Prepared Quarterly Bar graph and Pie chart for pipeline through Capture2Proposal tool; Facilitated the winning of a 14 million value contract for company.

ACCOMPLISHMENT

1st Place, Case Competition – Dr. First & Robert Smith Business School *Nov 2019*

- Competed with 12 groups to investigate effects of osteoarthritis on cardiac disease by processing 10 gigabytes of historic data using logistic regression through R studio, achieved model accuracy of 93.5%.
- Accessed cardiac disease's economic impact on Canadian social welfare; Created Tableau dashboard to visualize the effect of osteoarthritis on cardiac disease and related economic impact, delivered final presentation to judges.

RELEVANT EXPERIENCE

Data Modeling: Investment Suggestion for Airbnb Owner in Washington D.C. (R) *April 2020*

- Defined and customized KPI based on project requirement; extract 5400 records of real Airbnb listing data from 2015 to 2020.
- Built explanatory and prediction models to analyze key factors affecting booking rate of Airbnb homes using Linear and Logistic Regression, LDA, QDA, Random Forest, Elastic Net, Lasso, Ridge, XgBoost prediction models.
- Achieved 90% model accuracy performance, providing business suggestions to investors on optimizing Airbnb property, pricing and market to maximize profit.

Deep Learning: Amazon Customer Review Sentiment Analysis (Python) *Nov 2020*

- Performed data cleaning and feature selection using TF/IDF on Amazon customer reviews between 2009-2019.
- Forecasted Amazon customer sentiment by adopting Recurrent Neutral Network - Long Short-Term Memory (LSTM) using PyTorch on three major subcategories of merchandise sold.
- Achieved model validation accuracy of 82.5% and provide meaningful recommendations for amazon sellers on brand operations and marketing strategies.

Database Management Systems: Silver Oak Elementary School Database Design and Implementation (SQL) *Nov 2019*

- Established database management system for Silver Oak Cooperative School including design logical and physical database to allow storing, tracking, and updating information of major entities using Microsoft SQL server.
- Demonstrated business use cases by utilizing JOIN, WHERE, GROUP BY, CASE WHEN, etc. on database constructed and corresponding SQL query language.

Shahla Jahangard

(571) 412-7060
Shahla.jahangard@gmail.com
Fairfax, VA

A highly motivated and disciplined statistical science **Master' student** with multitude of crucial and distinctive skills, seeking a **Full-time position**. I have a strong Resourceful, analytical mind, with strong communication and problem-solving abilities. Seeking opportunity to apply passion for analysis of empirical evidence in an environment conducive to learning and growing as a Data Analyst.

Career Snapshot

Overall 5 years of rich experience in Statistical Science
SAS | R | SPSS | Minitab | Python | SQL | C++ | Excel | LaTex | JMP | Microsoft

Work Experience

August.2019 present **Teaching Assistant**
GEORGE MASON UNIVERSITY
- Explained statistical concepts to students and taught how to work with statistical software and interpret outputs.
- Assisting several students in improving their grades to 'A' level by end of the semester.
- Created numerous documents with LaTeX and visualizations with R and ggplot2.

May.2017 May.2018 **Data Analyst Intern**
SAMAN HEALTH INSURANCE
- Developed statistical models and machine learning algorithms and scaling to predict insurance company performance.
- Developed data visualizations and analytic tool for team to generate graphics and insights written in R using Shiny.
- Analysis and maintenance of various performance metrics to ensure the effective progress of several health institutes.
- Built an end-to-end distributed data processing using SQL as the primary language with SAS to ingest data from a variety of data sources, process and model data by non-linear regression.

May.2016 May.2017 **Statistical Analyst**
ISFAHAN UNIVERSITY OF TECHNOLOGY
- Designed survey research studies including questionnaire development, sample selection, checking survey results.
- Experienced SAS, SQL and Python programming, statistical analysis and data reporting.
- Responsible for gathering data from multiple data sources, using SQL and Minitab. Using this clean and augmented data for further machine learning techniques (regression, time series analysis) to create new analytical products.

Dec.2015 April.2016 **Statistician Intern**
BAHMAN MOTOR CAR FACTORY
- Performed exploratory data analysis of real dataset and wrote report highlighting challenges in its use for internship project.
- Practiced using SPSS and R packages for working on dataset that enhances administrative data with financial insights. It is a predictive model and provides an expected probability of outcome base on workers and factory big data to increase worker's satisfaction by using Linear Regression and Machine Learning (Logistic Regression) for modeling.
- Learned CSpro for graph database and wrote graph queries for recommendation system.
- Emerged as a leader among other interns, demonstrating documentation and coding standards and assisting other interns.
- working directly on Quality Control department, wrote and debugged SQL queries to add, modify, and retrieve data.

- Met with management department directly to discuss requirements for features and enhancements.

Selected Courses

- Applied Statistics I and II
- Time series
- Statistical inference
- Database
- Learning From Data
- Machine Learning
- Topics in Information Systems
- Biostatistics
- Data science for Business

Education

2019-May2021 **Master in Statistical Science**
George Mason University, US

2015-2017 **Master in Mathematical Statistics**
Isfahan university of Technology, IR

2009-2015 **Bachelor in Statistics**
Shahid beheshti university, IR

Certificate

Spring 2021 **Essential Data Science for Business**
National institute of statistical science, US

Publication

2014 Collaborated with Earth Science Conference and represented a conference article at 33rd Earth Science Conference. (Tehran, Iran. Data mining and working with statistical software (SPSS, Minitab) for analyzing data on methane gas for growth in health workers.)

2018 Achieving acceptance from two ISI Journals, innovated a new distribution, and introduced to two journals (Communications Faculty of Science, University of Ankara, Series A1 Mathematics and Statistics) and (International Journal of Supply and Operations at Management, 2018). (Using statistical methods on big data, Data cleaning, management and analysis using R, Excel, SQL)

Maxine (Xiao) Ma

1220 East West Highway, Apt. 1418, Silver Spring, MD 20910 ■ 240.413.9505 ■ xiao.ma@rhsmith.umd.edu

EDUCATION

Robert H. Smith School of Business, University of Maryland GPA:3.81 May 2019
M.S., Quantitative Finance (STEM) College Park, MD

- Team Leader of VITA: Prepared and filed the income tax return in 2018 tax season for the neighborhood low-income communities.
- Teaching Assistant: Financial Econometrics (I&II), Derivatives (JHU Carey Business School)

Peking University GPA:3.34 July 2017
B.S., Medical Sciences Beijing, China

- Performed genome sequence analysis using MATLAB to investigate the relationship between tuberculosis and PM2.5.

SKILLS

- Programming: Python, SQL (SPARQL, HIVE), MATLAB, SAS, VBA
- Data warehouse: AWS Redshift, AWS RDS, Netezza, Oracle
- Technologies: AWS EMR, AWS Sagemaker
- Tools & Visualization: Putty, WinSCP, Domino Datalab, Tableau
- Financial tools: Bloomberg, iWind, FactSet, MI Office
- Certification: SAS® Certified Advanced Programmer, CFA I

PROFESSIONAL EXPERIENCE

Fannie Mae July 2019 - Now
Financial Business Analyst (Contractor) Washington, DC

- Conducted transaction, severity, new acquisition and distressed assets model performance tracking on regular basis and updated production's assumptions accordingly.
- Engaged in SFM 2.0 - 2.5 model vetting process and troubleshoot model issues with stakeholders.
- Created PPRM deck to assess inputs and assumptions to the model before the production.
- Engaged in Netezza to Redshift migration process by updating the MPT Python code and SQL queries.
- Worked with the agile tech team for the SOP automation test and shakeout.
- Updated the Portfolio Allocation Python code on AWS Spark to fit DFAST scenario CECL implementation.
- Used SPARQL to create RDF graphs for tableau reports that were submitted to the FHFA and used in the Business User meeting.
- Conducted SOP, SI, CRT forecast each production quarter.

FJ Capital Management June 2018 - November 2018
Capital Market Summer Intern McLean, VA

- Developed a program in Python for daily web scraping from Morning Star.
- Programmed in VBA to achieve automation on MSA Exposure project, reducing working hours from 9 hours to 5 minutes.
- Evaluated and monitored the portfolio on a day-to-day and long-term basis.
- Maintained DCF/COMP valuation models, calculated beta and performed IRR sensitivity analysis.
- Connected Qlik with Bureau of Labor Statistics database and built dynamic visualizations.

Quantum Financial Advisors December - May 2018
Investment Research Intern Rockville, MD

- Tracked 25 years of equity prices for six leading utility companies and compared with IDU (ETF) and S&P 500 from Bloomberg.

TF Securities June - August 2017
Research Department Intern Beijing, China

- Performed GARCH model in VaR estimation and used Monte Carlo simulation under different conditions.
- Composed research report by collecting data from iWind and government documents and executed DCF/COMP valuation models.

PROJECT

Deloitte Machine Learning ELP:

- Programmed in Python to automatically download 2000-2017 Freddie Mac and Fannie Mae single family loan data to AWS S3.
- Used Linux and Hive language to clean and merge 260 GB+ data in the EMR Hadoop environment.
- Performed univariate and bivariate analysis to find spline for continuous variables and categories for discrete variables.
- Improved logistic regression model by using Python to perform ANN, random forest and boosting to forecast default rate.

Freddie Mac Simulation ELP:

- Estimated ARIMA-GARCH models for interest rate, mortgage rate and HPI and developed default and prepayment behavior equations.
- Simulated cumulative default distribution in Python over 500 paths and 40 quarters.
- Examined model stability and sensitivity, and calibrated models to align with actual benchmarks.

HANNAH (YAHUI) QU

Rockville, MD | (240) 810-5165 | hannah.qu.yahui@gmail.com

SUMMARY

- Strong knowledge in Financial and Data Analysis with experience in financial modeling for investment and research
- Proficient with SAS, Financial Modeling, and Excel
- Quick learner with outstanding economic, financial, and English language background
- Chartered Financial Analyst, Level II
- SAS Certified Specialist
- **Permanent U.S. Resident**

EDUCATION

Northeastern University Boston, MA
Master of Arts in Economics GPA:3.7/4.0 9/2015-5/2017
Coursework: Math & Stats for Economists, International Finance, Applied Econometrics, Microeconomic Theory, Macroeconomic Theory, Game Theory

Qingdao University Qingdao, China
Bachelor of Arts in English Language and Literature 8/2010-6/2014

EXPERIENCE

Beijing StarNeto Technology Co., Ltd. Beijing, China
Financial Analyst 2/2019-11/2020

- Analyzed market research data using SAS to study price trends, regional developments, market transactions, financial markets, and economic trends to discover value-add investment opportunity
- Extracted, compiled, and cleaned historical financial and accounting data of related public companies from CNINF
- Built financial models and performed valuations, such as DCF model, comparable companies and precedent transaction, providing investment and acquisition suggestions
- Assisted seniors to collaborate with sales, marketing, operation, IT and production departments to work on business optimization projects, providing insight for better business decision making

Accountant 9/2018-2/2019

- Conducted performance analysis based on financial statements, reported for business and senior management to understand sales performance by using Excel functions such as pivot tables, Vlookup, and Hlookup
- Prepared the weekly balance sheet, month end reconciliation, and monthly commentary on balance sheet movements
- Prepared the annual financial statements and reports, evaluated financial performance compared to forecast through ratio analysis and DuPont Analysis

Beyond Remarkable LLC. New York City, NY
Operational Specialist 7/2017-7/2018

- Increased the exposure to targeted clients by analyzing the data of current clients' information with SAS, offered the business expanding report to sales department
- Performed general accounting duties with respect to accounts payable/receivable, invoice verifications, budget, income and cost reports, and reconciliation
- Built client relationships by responding to inquiries, identifying and assessing needs, resolving problems, and following up with potential and existing clients

BostonWise LLC. Boston, MA
Operations Analyst Intern 5/2016-9/2016

- Analyzed weekly and monthly business data to produce operation performance analysis, visualizing results in Excel
- Prepared budgets required for the implementation of summer programs
- Assisted senior analysts with their daily work

Kshitij Halbe

kshitijlfc@hotmail.com
Mobile phone number: +1(704)236-2486
LinkedIn: www.linkedin.com/kshitij-halbe

Education

University of North Carolina, Charlotte — Charlotte, NC
Belk College of Business — *2019-2020*
Master of Science in Mathematical Finance (Financial Data Analytics)

- Relevant Coursework: Stochastic Calculus for Finance, Fixed Income Securities and Credit Risk, Financial Computing, Numerical Methods for Financial Derivatives, Applied Machine Learning, and Database Systems.

University of Mumbai — Mumbai, India
National Institute of Securities Markets — *2017-2018*
Post Graduate Diploma in Quantitative Finance

Rashtrasant Tukadoji Maharaj Nagpur University — Nagpur, India
Department of Business Management — *2016 - 2017*
Post Graduate Diploma in Business Management

Rashtrasant Tukadoji Maharaj Nagpur University — Nagpur, India
G. S. College of Commerce and Economics — *2009 - 2012*
Bachelor of Commerce (Computer Applications)

Work Experience

Wells Fargo N.A. — Charlotte, NC
Corporate Model Risk — *July 2020 - August 2020*
Quantitative Analytics Intern

- Developed Secured Overnight Financing Rate (SOFR) futures having a tenor of 1 months and 3 months using the concept of Object Oriented Programming.
- Developed a pricer to calculate the convexity adjustment for the SOFR 1 month and 3 month futures, based on Eurodollar Futures convexity adjustment using the Heath-Jarrow-Morton framework.

University of North Carolina, Charlotte — Charlotte, NC
Belk College of Business — *May 2019 - May 2020*
Graduate Assistant

- Supported two faculty members in activities like setting up homework, finding data sets for classroom concepts implementation.
- Assisted in checking exams and grading.
- Helped in setting up the course material in Canvas, the University Learning Management System.

M/s. V. K. Surana & Co. Nagpur, India
Chartered Accountants *Sept. 2012 - Sept. 2015*
Articled Assistant

- Led teams of 3 or 4 members in conducting the internal audit of various listed and non-listed companies from diverse sectors like Fast Moving Consumer Goods (FMCG), Infrastructure, etc. providing an opinion on the set up Standard Operating Procedures (SOP) and the internal systems.
- Performed scrutiny and analysis of the financial transactions for authenticity, and to comply with the statutory requirements and the established standards of reporting.
- Compared the budgeted figures from various departments like production, finance, labor requirements, etc. with the actual requirement, and in case of shortfall, determined the reasons for the same and reported it to the higher management for curative action.
- Identified flaws and discrepancies in the Enterprise Resource Packages (ERPs) used by the clients, and provided solutions to rectify the same.

Academic Projects

Modeling Stock Prices using Cholesky Decomposition

- Modeled and analyzed the behaviour of Stock prices using the Linear Algebraic Concept of Cholesky Decomposition
- Compared the independently generated stock prices and the prices obtained by using the Cholesky decomposition, and checked the variation.

Mortgage Default Prediction Scorecard

- Predicted the defaults in mortgages using the Freddie Mac Single-Family Loan-level data set by building a model that acts as a scorecard for defaults using the concept of Logistic Regression, and calculated the Kolmogorov-Smirnov test statistic and Hosmer-Lemeshow (HL) test statistic to verify its goodness of fit.

Logistic Regression for Airline Delays

- Developed a model that predicted the variables that cause delays for airlines, using the concept of logistic regression, by applying the machine learning concepts of Synthetic Minority Oversampling Technique (SMOTE) and Recursive Feature Elimination (RFE).

Skills

Coding Languages and software:

- C++, Python, STATA, MATLAB, SQL, LaTeX, MS-Office

Language Skills

- **English** : Spoken and written fluency
- **Hindi** : Spoken and written fluency
- **Marathi** : Spoken and written fluency

Prasanna Sanjay Raut

https://prasanna5raut.github.io/
raut@uw.edu
Phone: +1 206-887-8611

Interests

Optimization and Statistics, Data Science, Machine Learning

Education

- **University of Washington (UW)** — Seattle, USA
  Master of Science (GPA: 3.92/4.00) — *2018 - 2020*
- **Indian Institute of Technology (IIT) Gandhinagar** — Gandhinagar, India
  Bachelor of Technology (GPA: 8.25/10.00) — *2014 - 2018*

Technical Skills

- **Languages/Tools**: Java, Python, Spark/PySpark, SQL, Git
- **Libraries**: Numpy, MLlib, Matplotlib, Pandas

Projects

- **Master's Thesis** *Advisor: Maryam Fazel (April '19 - December '20)*
  - Worked on online optimization with budgetary constraints, analyzing a novel setting where objective functions are adversarial but constraints are stochastic. Existing literature considered adversarial constraints, ignoring the stochastic component of the environment - the thesis aims to bridge this gap.
  - Introduced a new algorithm *OLFW* which balances objective maximization with budget consumption while exploiting the stochastic nature of the problem. Analyzed the algorithm and provided theoretical guarantees in terms of the regret metric, in expectation as well as high probability.
  - Conducted numerical experiments for an online joke recommendation system on the *Jester* dataset, comparing performance of *OLFW* to other strategies. *OLFW* has the best overall performance.
  - **Two conference papers** accepted — One at **NeurIPS 2020** as a *spotlight* paper and another at **AAAI 2021**.
- **Bayesian Inference using Markov Chain Monte Carlo** (*Random Processes*): Implemented the Metropolis-Hastings Algorithm to estimate the posterior distribution for the bias of a coin based on different priors. The algorithm also gives a way to actually sample from a probability distribution.
- **Modeling the evolution of language demography** (*COMAPS Mathematical Contests in Modeling 2018*) Formulated a model to forecast the trend for population of speakers of different languages over time by incorporating factors such as the population changes, government policies encouraging the use of a particular language, migration. Concluded that for most common languages, the trend is dominated by birth-rate and death-rates. Received *Honorable Mention* prize.
- **Seam Carving** (*Data Structures and Algorithms*): Class project implementing content-aware resizing of images. Modeled the image as a graph and included appropriate graph augmentations. Used data-structures and graph-based algorithms such as Kruskal's/Dijkstra's for identifying least relevant pixels in an image and removing them to reduce the image size. Implementation in Java.

Publications

1. *Online DR-Submodular Maximization: Minimizing Regret and Constraint Violation*
   Prasanna Raut*, Omid Sadeghi*, Maryam Fazel (* equal contributions)
   AAAI Conference on Artificial Intelligence (**AAAI**), 2021
2. *A Single Recipe for Online Submodular Maximization with Adversarial or Stochastic Constraints*
   Omid Sadeghi, Prasanna Raut, Maryam Fazel
   Advances in Neural Information Processing Systems (**NeurIPS**), 2020

Relevant Coursework

- **Machine Learning**: Machine Learning for Big Data, Online Learning
- **Optimization**: Convex Optimization, Network Optimization, Numerical Optimization
- **Statistics**: High Dimensional Probability and Statistical Learning, Random Processes
- **Computer Science**: Artificial Intelligence, Robotics, Data Structures and Algorithms

ABHIJEET ROYALA

Email: aroyala20@gmail.com Ph # 317 853 9874 | McLean, Virginia | LinkedIn | GitHub

SUMMARY

- IT professional with strong analytical skills seeking full-time opportunity in the field of Analytics and Data Science.
- Expertise in Data Collection, Wrangling, Visualization, and Reporting; Predictive Analytics, Statistical Analysis, Machine-Learning, and Deep-Learning; able to transform data to decisions.
- Strong numerical, interpretative, and diagnostic skills; able to communicate effectively with cross-functional teams.

EDUCATION

Master of Science in Applied Data Science, IUPUI, Indianapolis, IN **(GPA: 3.77/4)** ***May 2020***

Bachelor of Technology, Jawaharlal Nehru Technological University, India ***May 2018***

Relevant Courses

Statistical Inference, Data Analytics, Deep Learning Neural Networks, Cloud Computing for Data Science, Visualization Design & Analysis, Database Design, Web Database Development, Informatics Project Management, Introduction to Informatics.

SKILLS

Programming Languages: SQL, NoSQL, Python (Pandas, Scikit-Learn, TensorFlow, Keras, PyTorch), R, Apache Spark, C, Java

Database Applications: MySQL, PostgreSQL, Microsoft SQL Server, Pig, Hive, Microsoft Access

Visualization & Reporting: Tableau, Microsoft Power BI, JavaScript (D3.js), HTML

Cloud Computing Services: AWS (EC2, S3, RDS, Redshift, EMR, SageMaker), Microsoft Azure

Other Tools: Microsoft Excel (Advanced), PowerPoint, Jupyter Notebooks, Orange, Git, Visio, PHP

EXPERIENCE

Data Science Research Associate, *Indiana University Purdue University Indianapolis, IN* ***June'20 - Present***

- Scraped the text data from platforms like Reddit, PubMed and parsed the unstructured data for NLP Algorithms.
- Built two-step ML framework using RNN (LSTM, BI-LSTM) and attention-based models like (BERT):
  - Identified and classified the sentences based on the presence of causation words in them, achieving the classification accuracy of 98% in this step.
  - Identified key role-playing parts (words and phrases) that depict the causal relationship in the sentence, delivering algorithm effectiveness of 78% in the test set.

Data Analyst, *Indiana University Purdue University Indianapolis, IN* ***Aug'18 – Dec'19***

- Worked with the office of Assessment, Research, Retention, and Technology Integration to support the ongoing effort on a variety of assessment and technology initiatives (Data Analytics Project, Student Experience Redesign)
- Analyzed student orientation data for Fall'18 & 19 and Spring'19 intake with the support of advanced excel and Tableau. Created BI reports in Tableau and shared them with certain key stakeholders.
- Worked on student retention algorithm by analyzing data from student experience, housing, admission & enrollment.

Operations Research Intern, *VL Papers Pvt Ltd, Hyderabad, India* ***May'16 - May'17***

- Analyzed historical (10 years) data of production and wastage of paper rolls and built an optimization model using MS-Excel to generate trim plans with minimal paper waste and fewer knife setups.
- Optimization algorithm developed using linear programming principles had trimmed the paper wastage by 5%.

PROJECTS

- **Breast Cancer Prediction**: Used Convolution Neural Network Machine learning (ML) algorithms to predict the presence of Invasive Ductal Carcinoma (cancer) in the breast tissue from histopathology image data and successfully reduced the false positive rate (Type-1 Error) by 10%.
- **Book Recommendation System**: Implemented the collaborative filtering technique using the alternative least square algorithm (ALS) to recommend books to the users based on their previous reviews on goodbooks dataset. Implemented this recommendation system using Python API (PySpark) for Apache Spark.
- **Relationship between Environmental and Socioeconomic Factors on Health**: Studied the impact of socioeconomic and environmental factors on the health of individuals over various regions of the USA, by performing correlation analysis, hypothesis testing, and regression analysis. Built predictive models in python and visualizes the results using Tableau.
- **Student Database Design**: Designed Business rules, Entity Relationship Diagrams (ERD's), Relationship schemas, Subtype, Supertype entities for a student database required for a university and implemented database system in MySQL server including front end interface using MS Access; making it user friendly.
- **Web Database Development**: Designed and developed a web database for The Jane Pauley Community Health Center for administering and managing the patient data. The webpage allows the patient to register and log-in to get access to the website, has admin features like authorizing grants to certain staff for performing CRUD operations with the data.
- **Data visualization**: Created a web page that displays the interactive visualization of Africa child mortality levels and trends on UNICEF data using D3.js; increasing the accessibility (web-link) to the end-users.