

Yuanbo Wang

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EDUCATION

University of Florida <i>Ph.D. candidate in Industrial and System Engineering (Operation Research and Optimization)</i>	August 2018 - Present GPA: 3.90/4.00
University of Virginia <i>Master of Science in Data Science</i>	May 2016 GPA:3.6/4.0
University of Illinois at Urbana-Champaign <i>Bachelor of Science in Mathematics and Statistics</i>	May 2014 GPA:3.5/4.0

TECHNICAL SKILLS

- Five years of Data Analysis software: R (Advanced), SAS (Certified, STAT), Excel (Pivoting, VLOOKUP)
- Databases and visualization: SQL (PostgreSQL, MySQL), D3.js, Tableau (Business Intelligence)
- Programming Language: Python, MATLAB
- Machine Learning techniques: Random Forest, XGBoost, Clustering, KNN, GBM, SVD, Neural Network

WORK EXPERIENCE

Jvion Atlanta, Georgia
Data Scientist April 2017 – August 2018

- Developed risk-based prediction model for patient-level illnesses and conditions in certain time log by using machine learning algorithm and automated the encounter-level prediction reporting procedures for daily basis.
- Perform analysis on the targets including patients with sepsis, patients with pressure ulcer hospital readmission among IP visits, ER visits, and IP/ER visits among diabetes patients, congestive heart failure.
- Analyzed and summarized data and model results on clinical performance across vectors in order to provide the risk factors behind decision.
- Report and visualize results of statistical analyses, in the form of graphs, charts, and tables using Tableau.

Resonance Companies NYC, New York
Marketing Data Analyst Intern October 2016 – January 2017

- Developed code and extracted the Ecommerce data from the Shopify online platform using Python API.
- Utilized spreadsheets and statistics to analyze significant patterns of high-value Customers for cohort analysis.
- Generated the Gross Margin distributions based on the orders, customers and time period for marketing research.
- Analyzed data to present results of segmentation, customer/user behavior patterns and potential factors in Tableau.
- Extracted the results from Google Analytics, Facebook Ads and MailChimp for daily report.

BBDSERVICE Chengdu, China
Data Analyst October 2014 - July 2015

- Identified and solved business challenges utilizing large structured, semi-structured, and unstructured data.
- Established analysis model to correlate and forecast the inventory and sales for Ecommerce using SAS and R.
- Investigated the unobserved factors of Credit Scoring based on the categorical information of the target company.

KPMG LLP Beijing, China
Audit Intern June 2013 - August 2013

- Consolidated Excel spreadsheets using advanced formulas to reduce redundancy and accelerate validations.
- Collected audit evidence of budgets in State-owned enterprise. Traced and vouched monetary and fixed assets.
- Evaluated the financial statement and prepared income presentation in Excel and PowerPoint.

ADDITIONAL EXPERIENCE

University of Virginia Health System Gainesville, Florida
Graduate Researcher August 2015 – August 2016

- Researched the basics for high-dimensional learning and initialized the potential application on the image recognition and reconstruction.
- Learned the coursework covering statistics, probability, deep learning, mathematical programming.

University of Virginia Health System Charlottesville, Virginia
Data Researcher August 2015 – August 2016

- Performed sophisticated analysis and presented results against medical needs to support Health System experts.
- Developed a risk predictive model to identify patients with disease earlier and more accurately in R with KNIME.
- Assisted Doctors in the final presentation with data visualization using Tableau to win \$100,000 Coulter Program.

University of Illinois at Urbana-Champaign Champaign, Illinois
Lab Teaching Assistant and Head Course Grader January 2013 – December 2013

- Taught weekly Lab sections and lab course for 40 undergraduate students.
- Developed interactive course material to bioinformatics software.

RELATED PROJECTS & RESEARCH

Early detection of the sepsis patients

Atlanta, Georgia

Jvion

July 2017 – February 2018

- Implemented complex SQL queries for data investigation and mapping to extract data for analysis.
- Pivoting numeric variables (vital signs, lab values) and categorical variables by separately methods and applied the one-hot encoding for high missing-rate variables.
- Built a machine learning model to provide the risk score for each patient and updated them into high-risk, Medium-risk and low-risk category. Also Extracted the local top risk factors for each patient using LIME.
- Applied the identifier to the daily-based Electronic Health records and split them into two groups in order to automate the encounter-level prediction reporting procedures for 12-hour windows.

Analyzing User Behavior Patterns

NYC, New York

Resonance Companies

October 2016 - November 2016

- Calculated the Marketing and Key Performance Indicators such as Gross Margin and Lifetime Revenue.
- Set the threshold for profit per customers to be tagged as high-value customers.
- Applied Tableau as Business intelligence tool to visualize the new high-value customer's performance by cohort.
- Collected the transaction or traffic data from marketing platform or Ecommerce Platform.
- Compared the details of the behavior patterns between high-value customers and low-value customers group.

Identifying Customer Complaints on Social Media

Charlottesville, Virginia

UVA System Engineering

August 2015 - December 2015

- Extracted the tweets in the fields of the airline and telecom supporter from twitter using Python.
- Hand-labeled the tweets into complaints and non-complaints. Performed the Naïve method as the baseline.
- Developed Bag-of-word logistic classifier and SVM based on the LDA model using R.
- Compared the Accuracy, Recall, Precision and Area Under Curve among three models.

BBD Higgs Credit

Chengdu, China

BBDSERVICE

October 2014 – July 2015

- Portrayed a company from the super-large scale and real-time non-financial data to satisfy the financial use.
- Collected the industry domain information and divided the companies into different groups based on size.
- Built the Sophisticated Corporate relations as investment network, natural person, working relationship and so on.
- Standardized the features of the capital structure and governance structure in corporate associated relations.

PUBLICATION

[3] 1358: PREDICTIVE MODELS OF FEVER AND MORTALITY IN HOSPITALIZED PATIENTS WITH NEUTROPENIA

Gulleen, Elizabeth; Wang, Yuanbo; Ainsworth, John; Barnes, Laura; Moore, Christopher [Critical Care Medicine: December 2016 - Volume 44 - Issue 12 - p 415]

[2] 1389: OPTIMIZED PREDICTIVE MONITORING OF NON-INTENSIVE CARE UNIT PATIENTS AT RISK FOR SEPSIS

Moore, Christopher; Ainsworth, John; Wang, Yuanbo; Barnes, Laura [Critical Care Medicine: December 2016 - Volume 44 - Issue 12 - p 423]

[1] OPTIMIZATION OF SEPSIS RISK ASSESSMENT FOR WARD PATIENTS

Shannon Mitchell; Katherine Schinkel; Yifeng Song; Yuanbo Wang; John Ainsworth; Travis Halbert; Stephen Strong; Jinghe Zhang; Christopher C. Moore; Laura E. Barnes [Systems and Information Engineering Design Symposium (SIEDS), 2016 IEEE]