

# Wenbo Ma

Projects available at: <https://github.com/wenbo5565/summary>

Email : wenboma2011@gmail.com

Mobile : +1-732-519-2156

## SUMMARY

---

Looking for a job related to statistical modeling and data analysis; currently research on optimization and machine learning; previously a data analyst at Deloitte U.S.; programming in Python, R, VBA and Tableau. I am eligible to re-apply H1B visa immediately without lottery since I had H1B at Deloitte.

## EDUCATION

---

- **George Washington University** Washington D.C.  
*M.S. Data Science; GPA: 4.0; Phd course: convex optimization, probability, nonlinear optimization Aug 2017-Present*
- **Rutgers, the State University of New Jersey** New Brunswick, NJ  
*M.S. Statistics; GPA: 3.90; Regression analysis, data mining, time series analysis Aug 2014- Dec 2015*
- **Anhui University of Finance and Economics** Anhui, China  
*B.S. Accounting; CICPA-sponsored internship at PwC HongKong and RSM McGladrey Chicago Aug 2008- Jun 2012*

## EXPERIENCE

---

- **George Washington University** Washington D.C.  
*Research Assistant advised by Prof. Miguel Lejeune May 2018 - Present*
  - **Stochastic programming and machine learning:** Research on the emerging distributionally robust optimization (DRO) theory and its application in machine learning.
  - **Working paper: distributionally robust AUC optimization:** Develop new classification models and algorithms to maximize Area under ROC curve (AUC) value using DRO with Wasserstein metric.
- **Deloitte U.S.** New York, NY  
*Data Analytics Specialist Feb 2016 - Mar 2017*
  - **Deloitte hotel analytics tool (DHAT):** Design and develop a VBA app to enable assurance teams use third-party data and descriptive analysis. Author the user-guide. Recognized Deloitte's Applause award by an industry leader for exceptional performance.
  - **Data processing and visualization:** Design and develop data processing pipelines in R and SAS. Build dashboards in Tableau to embed data visualization into audit risk assessment procedures for finance sectors.
  - **Group audit tool:** Develop a VBA app to automate group auditing documentation procedure.

## PROJECTS

---

- **Loan Application Prediction**  
*[https://github.com/wenbo5565/AppliedProject\\_GranteeingLoan](https://github.com/wenbo5565/AppliedProject_GranteeingLoan)*
  - **Exploratory analysis:** Conduct exploratory analysis for a bank's loan application data. Identify potential strategy to improve its profitability from the data.
  - **Machine learning model building:** Develop a Gradient Boosting Trees model (GBM) to predict whether a loan application will be fully repaid in the future. Our model outperforms the bank's current strategy.
  - **Business strategy:** Propose a profitable strategy on previously denied applications based on our analysis.
- **Computer Vision/Image Analysis**  
*<https://github.com/wenbo5565/summary>*
  - **Behavioral cloning (deep learning):** Develop a deep convolutional neural network to imitate human drivers' behavior in a simulator.
  - **Traffic lane detection:** Develop a software pipeline to detect traffic lanes via a front-facing camera in a vehicle.
  - **Vehicle tracking:** Develop image features extraction pipelines and support vector machine models to track nearby vehicles.

## TECHNICAL SKILLS

---

- **Tools:** Python, R, VBA, MATLAB(CVX), Tableau, AMPL, GitHub, AWS, Google Cloud
- **Libraries:** numpy, sklearn, tensorflow, pandas, opencv, matplotlib, R shiny, markdown