

# Yu Cai

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## Education

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- Cornell University** | *Weill Cornell Medical College*, New York, NY 09/2018-12/2019  
➤ Master of Science Data Science and Biostatistics GPA: 3.88  
➤ Coursework: SAS, Data Mining & Statistical Learning, Data Science, Data Management
- Hobart and William Smith Colleges** | *William Smith College*, Geneva, NY 08/2013- 06/2017  
➤ Bachelor of Arts in Mathematics & Bachelor of Sciences in Economics GPA: 3.68  
➤ **Honors and Awards:** Catharine Adele Rippey '35 Prize, graduating senior with highest ranking in Math, William Ross Proctor Prize in Mathematics, Dean's List, Alpha-Xi Chapter of Omicron Delta Epsilon, granted by International Honor Society in Economics

## Skills

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**Technical Skills:** SAS, R Studio, SQL, LaTeX, Python, Java, Microsoft Office (Excel, PowerPoint, Word)  
**Professional Certificate:** SAS Certified Base Programmer for SAS 9

## Selected Project

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- Analysis the Risk Factors of Low Birth Weight** | *Categorical & Censored Data Analysis* 12/2018  
➤ Used demographic table, univariate and multivariate analyses table to identify risk factors associated with giving birth to low birth weight baby (<2,500 grams). Then we used the automatic variable selection method-stepwise method with deviance comparison to come out final model
- R package: Summarize Continuous Variable** | *Foundations Biomedical Applications project* 03/2019  
➤ Provided an efficient way to summarize continuous response variables by categorical explanatory variable(s) by creating view tables and graphs to display the general information of the data as well as the results of inference
- Environment Impact Calculator** | *Data Science* 10/2019  
➤ Applied shinyapp.io and R Studio to build an interactive website for Happy Valley Meat Company to demonstrate that Grand Beef is the most environment friendly choice of beef for costumers.

## Professional Experience

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- Data Analyst Intern** | *Esperity*, Brussels, Belgium Fall 2015  
➤ Collected online data about gears that keep track on health-related information of the customers, such as fitbit, Apple watch; presented the information in tables and summarized the results in report  
➤ Collected health information based on online chat records of participants, including when they were sick, when they recovered, etc  
➤ Conducted literature review on Google Scholar on studies about similar studies on user behaviors
- Economic Teaching Follow** | *Hobart and William Smith Colleges*, Geneva, NY Spring 2016  
➤ Taught students methods to solve problems based on their preferred style of learning  
➤ Serve as the only liaison between students and faculty  
➤ Economics Classes covered: Principles of Economics, Econometries, Macroeconomics, Microeconomics, and Statistics
- Math Intern** | *Hobart and William Smith College*, Geneva, NY 05/2017-06/2018  
➤ Taught students methods to solve problems based on their preferred style of learning for Pre-Calculus, Calculus I, Calculus II, Linear Algebra, and Multi-Variable Calculus  
➤ Worked as a teaching assistant to the professor during certain lab-based classes  
➤ Performed as the only liaison between students and faculty  
➤ Served as the only teaching assistant during five lab-based classes and worked 30 hours a week
- Research Assistant** | *Hobart and William Smith College*, Geneva, NY 05/2016-08/2018  
➤ Worked on the Phylogenetic project, which is a combination of Mathematics, Computer Science and Biology  
➤ Proposed a quartet based species tree structure algorithm, which is more efficient and statistically consistent compared to the traditional approach to constructing gene tress from DNA data  
➤ Conducted literature review via Google Scholar and NCBI and conducted data analysis using programming languages such as Java, Perl, and R Studio  
➤ Presented the findings in figures created in Excel to show the extent to which the precision of the proposed algorithm has improved

## Conference

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- MAA Seaway Section Conference**, State University of New York at Oswego, Oswego, NY Fall 2017  
**NCUWM Conference**, University of Nebraska-Lincoln, Lincoln, NE Fall 2017