

Hartaig Singh

432 W 38th St, New York, NY, 10018 | 516-698-8545 | hartaig Singh@gmail.com

SUMMARY

Data scientists and market researcher with strong programming skills in **R, SAS, SQL, SPSS, Excel** through industry positions and self-initiated research projects. Passionate about help researchers and businesses analyze and understand their data to answer questions of interest and offer insight. Significant experience and interest in biostatistical analysis, market research analysis, data mining, predictive modeling with massive patient and physician level data and survey data.

PROFESSIONAL EXPERIENCE

Michael Allen Company (Darien, CT & New York, NY) – **Research Associate** June 2018 – Present

- Healthcare growth strategy management consulting firm specializing in market research analysis for pharmaceuticals
- Work with firm partners to build datasets from secondary sources (physician & patient surveys) and/or clinical data to develop analysis plan, clean, restructure and validate data (**SQL, SPSS**) by generating versatile, reproducible code
- Identify potentially meaningful findings and significant insights from analysis to answer clients' questions such as physician/patient/consumer profile, source of business, driver analysis, current and future market assessment
- Utilize robust statistical methods such as regression modeling, CHAID, CART, and hypothesis testing (**R, SPSS**) complimented with intuitive visualizations (**R Shiny, Excel**)
- Projects/Studies include: HIV, ADHD, Acute Myeloid Leukemia, Non-metastatic Castrate Resistant Prostate Cancer

Columbia University Quantitative Methods for Social Sciences (New York, NY) – **Teaching Assistant** Sept. 2017 – Dec. 2017

- Graduate level course on econometrics, linear regression, generalized linear models, data reduction techniques (factor and cluster analysis), goodness of fit measures, and **R** programming for social sciences
- Holding weekly office hours, responsible for grading projects and exams

Northwell Health (New Hyde Park, NY) – **Data Analytics & Strategy Intern** June 2017 – Aug. 2017

- Built predictive model to discover insight into strong indicators of patient length of stay such as age, vitals, insurance
- Methods used: Logistic regression, Linear Regression, Random Forest, Gradient Boosting
- Using the model: Odds of a length of stay greater than 5 days is 30% higher for a patient who is 10 years older
- Machine learning, statistical modeling and data visualization in **R**, data collection with **Microsoft SQL servers**
- Frequent collaboration with clinicians and data architects to collect and understand data
- Presented and intuitively explained results to higher-ups at board meetings

Stony Brook University Applied Mathematics & Statistics (Stony Brook, NY) – **Research Assistant** July 2015 – July 2016

- Innovatively and strategically developed software to quantitatively model and forecast the Herpes Virus using **MATLAB** and perform rigorous statistical analysis in **R** on large complex data sets
- Frequent collaborative and self-initiated efforts to further understand advanced biological systems given a predominantly mathematical background speaking to my multidisciplinary nature and versatile skillset

Science and Technology Entry Program (Bayside, NY) – **Instructor** Oct. 2014 – May 2015

- Lead classroom instructor for high school level physics, geometry, algebra, and trigonometry
- Successfully helped 15/15 students pass their required New York State mathematics regents exams

PERSONAL PROJECTS

- Developed user friendly, interactive applications to help researchers seamlessly analyze and understand their data
 - Longitudinal Analysis of Septic Patients: <https://hartaig.shinyapps.io/Longitudinal/>
 - Survival Analysis of Acute Myocardial Infarction Patients: <https://hartaig.shinyapps.io/Survival-Analysis/>
- Experienced and passionate jazz guitarist
 - Improvised guitar over Duke Ellington classic: <https://soundcloud.com/hartaig-singh/it-dont-mean-a-thing>

EDUCATION

Columbia University – New York, NY Sept. 2016 - May 2018
MS, Biostatistics (Theory & Methods)

- Relevant Courses: Survival Analysis, Longitudinal Data Analysis, Categorical Data Analysis, Design of Experiments, Data Mining & Machine Learning, Generalized Linear Models, Statistical Inference, Advanced Statistical Computing

Stony Brook University – Stony Brook, NY Aug. 2012 - May 2016

BS, Applied Mathematics & Statistics

Minor, Jazz Music