

Blair Cha

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EDUCATION

Macalester College – St. Paul, MN *Bachelor of Arts, May 2020*
Major: Applied Mathematics and Statistics | *Minor:* Economics *Cumulative GPA : 3.60 / 4.0*
Awards: Kofi Annan Scholarship Recipient (A 4-year scholarship for academic excellence) *Major GPA : 3.80 / 4.0*
Coursework: Correlated Data, Probability, Machine Learning, Data Science, Database Management, Financial Accounting
Technology: SAS, R, R Shiny, HTML, SQL, Python, MS Office, STATA, MATLAB | *Society of Actuaries:* Exam P, FM

PROFESSIONAL EXPERIENCE

Data and Policy Analyst, Statistical Programmer, Acumen, LLC – Burlingame, CA Aug. 2020 – Present

- Statistically evaluate drug safety and vaccine effectiveness for epidemiological studies, such as COVID-19, using SAS.
- Manipulate datasets with billions of observations to extract valuable information and present to the CDC and FDA.
- Conduct weekly Mortality and Medicare Part D analysis by investigating health outcomes and visualize trend with R Shiny.
- Create a SAS macro program that performs quality assurance for Part D, Mortality, Flu and COVID-19 vaccine analysis.

Actuarial Intern, Aon – Bloomington, MN June – Aug. 2019

- Performed annual valuations via ProVal, a software that performs asset-liability modeling to evaluate clients' pension plans.
- Generated long-term projections of pension information in Excel by identifying the best metrics for financial performance.
- Received letters of gratitude from partners of the firm for excellent work ethic and communication skills.

Mayo Innovation Scholar, Mayo Clinic – Rochester, MN Oct. 2018 – Feb. 2019

- Collaborated in a team of economics and biology students to assess the potential of a drug invention that treats hypertension.
- Generated a 70-page report on the team's research and recommendations on launching the drug to market.

Associate Analyst, Monicat Data Management Consulting Startup – Minneapolis, MN May – Aug. 2018
(Selected out of 40+ applicants for Macalester's MacNest Entrepreneurship Program, received a \$5,000 award)

- Led market research with MS Excel and R, hosted a technology summit in the Twin Cities, built partnerships with firms.

Statistical Data Analyst Intern, Korea Association of Health Promotion – Seoul, South Korea June – July 2017

- Analyzed data pertaining to patients with Impaired Glucose Tolerance Syndrome and presented it to 30+ staff.
- Proposed an innovative idea to partner with local grade schools which led to new contracts with schools.

ACADEMIC PROJECTS

Investigating the Causes of Suicide Across Nations: A Mixed-Effect Model Approach, Correlated Data Dec. 2019 – Feb. 2020

- Analyzed cross-country longitudinal data to explore the causes of suicide by identifying the best statistical model with R.
- Presented research to all students and Mathematics, Statistics, and Computer Science Professors in February 2020.

Investigating the Reality of HF 939: Felon Enfranchisement in Minnesota, Race and the Law May 2020

- Explored carceral colonialism in Minnesota and discussed the effects and limitations of the House of Rep. of Minnesota bill.

Societal Factors that Best Explain Political Ideology Preference in South Korean Elections, Machine Learning May 2019

- Identified the most significant factors to be the interest in the election and the candidates' opinions of giving aid to North Korea with techniques such as Forward Subset Selection, Logistic Regression, Decision Tree, and Random Forest.

Causal Inference, Mathematical Statistics May 2019

- Generated a 10-page textbook on Causal Inference and taught the materials to the class in a 45-minute presentation.

Black Scholes Model: Pricing Financial Options, Differential Equations Dec. 2018

- Explained the Black Scholes equation with physics, and generated Monte Carlo simulations of stock price in MATLAB.

LEADERSHIP & COMMUNITY SERVICE

Macalester College Student Government

- President (elected)* Sept. 2019 – May 2020
- Vice President (elected)* Sept. 2018 – May 2019

Teaching Assistant, Macalester College Statistics Department

- Probability, Epidemiology* – Held office hours, graded, and held meetings with the Professor. Sept. 2018 – Dec. 2019