

# Mengyuan Chen

Boston, MA | nicolechenmy@gmail.com | (857) 210-4435

## EDUCATION

### Boston University

Bachelor of Arts in Statistics | GPA: 3.5/4.0

Boston, MA

2020.09 - 2024.06

**Courses:** Multivariable Calculus, Probability, Applied Statistics, Graph Theory, Linear Algebra, Analysis of Variances, Neuropsychology, Stochastic Process, Discrete Math

### Columbia University

Master of Science in Biostatistics

New York

2024.09 - 2026.06

## RESEARCH EXPERIENCE

### Impact of Non-Replicated SNPs on Phenotype Prediction using PRS

2023.05 - 2023.12

- Investigated how non-replicated SNPs affect polygenic risk scores (PRS) accuracy in predicting phenotypes, considering the lack of replication in subsequent studies
- Employed robust statistical analysis to identify inconsistent dataset segments, particularly non-replicated SNPs, aiming to refine PRS predictions by removing noise
- Through meticulous curation, successfully enhanced PRS prediction accuracy by mitigating the influence of non-replicated SNPs, with implications for personalized medicine and genetic risk assessment methodologies

### Integrated Null Models, dsub, and Rare Variant Analysis in Genetic Research

2023.05 - 2023.08

- Interpreted results from a null model to establish baseline data distribution, a foundational step in comprehending genetic effects
- Efficiently configured dsub tool for streamlined cloud-based computational analyses
- Managed aggregation of test data through dsub, facilitating insightful rare variant analysis, enhancing understanding of less frequent but impactful genetic variations

### Estimated Tuitions of US Universities

2021.09 - 2021.10

- Explored tuition trends in the top 300 US universities, transitioning to a sample of 50 universities due to data limitations, employing random ranking assignment for model fitting and residual analysis
- Oversaw data collection, cleansing, and executed random sampling, contributing actively to model fitting
- Accurately predicting tuition fees for two additional universities using our model, with both predictions falling within the 95% confidence interval generated using JMP, demonstrates the model's robust predictive capacity

## PROFESSIONAL EXPERIENCE

### Kangtai Technology Co., Ltd.

Nanjing, China

Operations Intern

2021.05 - 2021.08

- Tracked and analyzed monthly sales data in Excel to identify trends, leading to the implementation of a new sales support strategy based on peak purchase times
- Managed documentation for the successful introduction of 15 new products across diverse regions in China
- Collected, cleaned, and analyzed financial data in Excel, contributing to valuations and financial forecasting models that supported informed decision-making for clients and stakeholders

## EXTRA-CURRICULUM ACTIVITIES

### BU DREAM Program

Boston, MA

Mentor

2022.02 - Present

- Held a volunteer position as a mentor to guide 8 to 18-year-old children to recognize their options, made informed decisions, and empower kids to look towards the future with a college student as their model
- Attended weekly meetings to plan for the following programming as well as check in on how we can improve more
- Assisted in general programming during weekends includes a variety of activities such as ice skating, learning krav maga, field days, pie-making days, and many others

## SKILLS

**Languages:** Mandarin (native), English (fluent)

**Technical Skills:** Proficiency in Microsoft Office, VBA, Python, JMP, and R