

---

# Dang Lin

50 Haven Avenue | New York, NY, United States | (929) 855 6832 | dl3757@cumc.columbia.edu

---

## EDUCATION

### Columbia University Irving Medical Center

New York, US

Master of Science, Major: Biostatistics (Theory and Methods)

Sep. 2024 - May 2026

### University of Toronto

Toronto, CA

Bachelor of Science, Major: Statistics, Economics

Sep. 2020 - June 2024

- **Cumulative GPA:** 3.60/4.0; **Dean's List Scholar** (2020-2021 & 2021-2022 & 2022-2023 & 2023-2024 )
- **Core Courses:** Calculus Science II / Linear Algebra II / Probability and Statistics II / Methods of Data Analysis II / Surveys, Sampling and Observational Data / Big-Data Tools for Economists / Statistical Methods for Machine Learning / Design and Analysis of Experiments / Survival Analysis / Time Series

---

## RESEARCH EXPERIENCE

### Fudan University

Shanghai, CN

Nutrition and Food Hygiene Department – Research Assistant

Jun. 2023 - Aug. 2024

- Worked as the Research Assistant under Prof. Liang Sun on projects related to dietary nutrition in kindergarten children, as well as intestinal health, sleep, brain health, and cognitive function in the elderly
- Completed the diet survey and nutrition analysis report based on diet data sheet provided by kindergartens, and performed data cleaning and load calculations by R language
- Contacted elderly individuals over 55 years old in the community and invited them to participate in the probiotic project. Conducted preliminary behavioral and cognitive screening for the invited participants, followed by precision screening for those who passed the initial assessment

### University of Toronto

Toronto, CA

Economics Department – Research Assistant

Oct. 2023 - Apr. 2024

- Worked as the Research Assistant under Prof. Tianyi Wang on projects investigating the effects of having a daughter on physicians' behavior and their treatment of female patients, drawing inspiration from a study that examines how daughters affect their legislator father's voting on women's issues
- Assisted the professor with the literature review, finding past research on determinants of physician behavior, impacts of doctors, differences in men's and women's perspectives on the quality of health care, contributions of female health to economic development, and related topics

---

## ACADEMIC PROJECT

### Factorial Design of Factors Affecting the Taste of Pork Ribs

Mar. 2023 - Apr. 2023

- Utilized R to implement a  $2^3$  factorial design, systematically exploring the effects of three factors: Salt, Soy\_sauce, and Garlic on the taste of pork ribs; the experimental units were divided using two complete blocks
- Ensured consistent amounts of sugar and vinegar in the pork ribs during the cooking process, controlling potential confounding effects during R model fitting
- Applied t-tests in R to evaluate the significance of each factor and their interactions on the pork ribs' taste
- Refined the model by removing insignificant variables and subsequently fitting a reduced model; and validated this model using ANOVA F-tests in R
- Checked homoscedasticity and verified the normality of residuals using R visualizations

### Analysis on the Factors Affecting the Happiness Level of People in Different Countries

Sep. 2022 - Dec. 2022

- Explored six factors that affect people's happiness levels, including GDP per capita, social support, healthy life expectancy, freedom to make life choices, generosity, and perceptions of corruption

- 
- Built linear models in R and selected the best using data of approximately 150 countries collected from the World Happiness Report, and figured out happiness scoring based on different explanatory variables
  - Drew data analysis flow charts and applied the ANOVA F-test and t-test to check the overall significance of relevance between happiness and different factors with R Language

### **Toronto City Residents Commuting Style**

*Sep. 2022 - Oct. 2022*

- Investigated the commuting style of Toronto City residents by exploring diverse commuting components and researched the relationship between commuting and happiness levels
- Designed a questionnaire, emailed randomly selected people to gather data and generated data with R coding
- Worked on the data cleaning and data analysis by applying hypothesis testing in R

### **The Impact of Economic Development on Global Warming**

*Jan. 2022 - Apr. 2022*

- Collected real-world raw datasets of the Earth's average temperature changes over the last few centuries, GDP change per capita and the greenhouse gas emissions per capita using Jupyter Notes and processed the data with Python libraries including Pandas, Matplotlib, Geopandas, Seaborn, Beautifulsoup, and Numpy
- Analyzed and visualized January average temperature in different Northern-hemisphere countries by plotting the histogram, line plot, and scatterplots, and visualized the results using Python
- Built linear regression models in Python based on different independent variables; concluded that economic growth significantly impacts greenhouse gas emissions and economic growth impacts global warming with causal analysis

## **WORK EXPERIENCE**

---

### **Guosheng Securities Co., Ltd – Research Institution**

**Shanghai, CN**

*Biomedical Department - Summer Intern*

*Sep. 2023 - Apr. 2024*

- Study the novel payment model in medical technology, emphasizing the device-as-a-service approach; analyze global success stories, like Philips' Enterprising Monitoring as a Service collaboration with Jackson Health System for remote monitoring; investigate how this model enhances medical services and reduces overall healthcare costs

*Financial Engineering Department - Summer Intern*

*June 2023 - Aug. 2023*

- Conducted literature reviews on quantitative stock picking and analyzing volatility anomalies, including but not limited to Low-Volatility Investing: Balancing Total Risk and Active Risk Considerations
- Worked out a 25-page presentation material for explanation to clients about the low volatility anomalies
- Analyzed northbound capital flows and stock market conditions through research reports
- Applied Python to extract the required data from the database by using SQL Server, matched the closing price and average stock price, calculated the daily turnover rate, and then separated the allocation and trading orders
- Checked and reconciled the quarterly reports of public funds, and corrected errors in the reports

### **Shenzhen Qianhai Hengbang Equity Investment Co., Ltd**

**Shenzhen, CN**

*Investment Department – Summer Intern*

*June 2022 - Jul. 2022*

- Studied on the research reports on early screening for cancer, gastric cancer and colorectal cancer
- Researched various cancer early screening processes, methods and tools, such as Helicobacter pylori screening, analyzed China's leading enterprises in this industry, market size, competitive landscape, profitability, value-added space, penetration rate, and future development
- Completed a 25-page industry research report in regard of driving monitoring system with analysis of its midstream and downstream performance
- Worked out an investment proposal for a high-tech company covering its financial situation, business model and products, various patents and potential customers
- Wrote a project initiation report for a company with analysis of its market prospects and state issued industry related policies and assisted with the corresponding road show

---

**Shenwan Hongyuan Securities Co., Ltd**

*Investment Department – Summer Intern*

**Shanghai, CN**

*Jul. 2021 - Sep. 2021*

- Contributed to the Initial Public Offering coaching of Gongqing City Gold Holding Co., Ltd
- Participated in intermediary coordination meetings and wrote minutes of meetings
- Learned about underwriting and sponsorship and inquired about litigation and arbitration
- Contacted law and accounting firms and negotiated related projects

---

**ADDITIONAL INFORMATION**

**Languages:** Chinese (Native), English (Full Professional), French (Elementary)

**Technical Skills:** Python, R, SAS, Stata, SQL, Tableau, Microsoft Office, Adobe, iMovie

**Certification (Coursera):** Introduction to Corporate Finance, Fundamentals of Quantitative Modeling

**Leadership & Volunteer:** Vice President of Brighten A Day (an NGO): responsible for recruitment and event planning

**Hobbies:** Piano, Basketball, Travelling, Reading