# Annie Lou

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# **EDUCATION**

# The University of Pennsylvania

Master of Computer and Information Technology

# The University of North Carolina at Chapel Hill

B.A. Double Major in Public Policy and Media & Journalism, Minor in Data Science

• **GPA**: 3.97/4.0, Highest Distinction; Honors Carolina Laureate

May 2023

Expected Graduation: May 2026

#### **SKILLS**

- Languages: Java, Python, C, R, JavaScript, SQL, HTML/CSS, Golang, Swift
- **Algorithms & Techniques:** Regression, Decision Trees, KNN, Clustering (K-Means, DBSCAN, Hierarchical), Dimensionality Reduction, Natural Language Processing, K-fold Cross Validation
- Tools & Frameworks: Pytorch, Sklearn, OpenCV, React, Anaconda, PyCharm, Docker, Git, Postman, Unix, Linux

#### PROFESSIONAL EXPERIENCE

Zift Solutions

New York City, NY

Data Analytics, BI Team Intern

• Improved user segmentation strategies by applying **K-Means** clustering and **Regression** on user behavior

- Improved user segmentation strategies by applying K-Means clustering and Regression on user behavior data, leading to an 11% increase in customer engagement
- Developed Google Looker dashboards and custom SQL queries on AWS Redshift, realizing a key
  performance indicator system updated every minute and supporting clients' real-time decision-making
  needs
- Automated data processing and feature engineering using Pandas, NumPy, and Sklearn
- Produced a 30-page customer onboarding report based on the data, providing actionable recommendations for enhancing customer onboarding experience

# **Bloomberg Government**

Washington, D.C.

Intern, Data Science Team

*Jan 2022 – Aug 2022* 

- Refined market sizing model for six rising sectors in contracting, correcting a \$180-billion underestimation through the identification of 38 new key search terms
- Optimized **SQL queries** and reduced average dashboard response time from 10 seconds to 7 seconds, improving data analysis efficiency and user experience
- Created multiple data dashboards using **Power BI**, increasing usage to 800 times per week, supporting real-time monitoring and decision-making for federal budget analysis
- Identified top government contracting opportunities valued at \$50 billion through the analysis of the White House's budget guidebook to Infrastructure Law; Published two news articles based on the analysis

Artificial Intelligence Policy and Innovation Project, Department of Public Policy, UNC-CH

Chapel Hill, NC

Research Assistant

Oct 2021 – May 2022

- Investigated ethical considerations in AI/ML development and applications, identifying gaps in current U.S. policy frameworks and contributing to the formation of policy recommendations
- Used advanced **Natural Language Processing** techniques such as topic modeling to analyze all state bills on autonomous vehicles since 2011, and successfully identified 11 common themes

# **Deloitte Consulting LLP**

Shanghai, China

Mergers & Acquisitions Strategy Intern

Aug 2020 - Nov 2020

- Supported an American fintech firm to enter the Chinese market by researching 400 merchant applicants weekly, evaluating money laundering risks, and ensuring compliance with local regulations
- Analyzed pharmaceutical company performance metrics using **Regression** and **Decision Tree** models, reducing quarterly forecasting errors and supporting a healthcare client's strategic decision-making
- Improved risk management and data analytics capabilities successfully raised client satisfaction score from 4.2 to 4.5, reflecting the business impact of the project results

# World Wildlife Fund (WWF)

Beijing, China (remote)

Intern

*July 2020 – Aug 2021* 

- Used **OpenCV** to process historical document images, which improved the number of documents processed per hour and the accuracy of information extraction, and successfully supported the digitalization of historical documents
- Completed 9 case summaries on green market transformation in China, which were submitted to the UN Environment Programme, providing insights for WWF and the UN's decision-making process