

# Ted Jesus C. Chua

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## EDUCATION

### Emory University

BSc, Quantitative Economics

Atlanta, GA

Aug 2017 – Aug 2021

- Coursework: Econometrics, Financial Econometrics, Mathematical Statistics, Advanced Statistics, Abstract Vector Spaces, Linear Algebra, Linear Optimization, Nonlinear Optimization, Empirical Methods & Machine Learning

## PROFESSIONAL EXPERIENCE

### Crime Lab, University of Chicago

Associate Data Analyst

Chicago, IL

Jul 2022 – Present

- Conduct statistical analysis of randomized controlled trials that implement & evaluate violence intervention initiatives to promote public safety at both local and national levels
  - \* **Implemented regression analyses of violence involvement in R** under varying subgroups & outcome windows to finalize study findings of Youth Advocate Programs
  - \* **Wrote and deployed a web scraper in Python** that autonomously collected 5000+ pages of data from a public database to support the Policing Leadership Academy's (PLA) outreach efforts with Columbus Division of Police
  - \* **Spearheaded the integration of the FBI Crime Data API in Python** through an end-to-end pipeline to validate Uniform Crime Reporting (UCR) data and streamline technical assistance requests in PLA
  - \* **Designed modular pipelines in Python and R** that process policing data to determine violent jurisdictions for PLA recruitment, leading to 52 units randomized into control/treatment across the first two cohorts
  - \* (in-process) **Develop large-scale data reconciliation in R using high-performance computing (Slurm)** within a team of two to produce a short-list of small-medium police agencies for PLA that satisfy programming constraints
- Mentored a summer-fall intern by managing workstreams and setting weekly check-ins to foster professional development
- Develop experimental designs to address research questions in collaboration with all levels of internal staff
- Present weekly reports to research and analytics teams for strategic decision-making and external communications

## PROJECTS

### Geospatial Analysis of Chicago Neighborhoods (Python, SQL)

Fall 2023

- Built an ETL pipeline by sourcing; pre-processing; & harmonizing administrative datasets from the US Census Bureau API and Chicago Data Portal into a **local database**.
- Queried tables for interactive **visualization** of neighborhood-level statistics of Chicago, including population adjusted robbery rates in the past five years.

### Spectral Clustering of Spotify Data (Python)

Spring 2021

- Examined the inter-connectivity of music using spectral clustering in a team of four students, then presented findings to undergraduate mathematics class.

## UNDERGRADUATE EXPERIENCE

### Emory Division of Pediatric Infectious Diseases

Image Analyst

Atlanta, GA

Sept 2019 – Dec 2019

- Analyzed virus-cell fusions in Icy and ImageJ at the Melikian Lab under the supervision of a postdoctoral fellow to generate training data for a clustering algorithm

### Atlanta Department of Watershed Management

Safety and Security Intern

Atlanta, GA

May 2019 – Aug 2019

- Served as a first point-of-contact to Atlanta constituents who are under investigation for residential and commercial water theft, namely by clarifying local ordinances and helping them legally restore service with the city

### Emory Clinical Cardiovascular Research Institute

Research Assistant

Atlanta, GA

Sept 2018 – Apr 2019

- Assisted in database management of 7000+ patients who undergo cardiac catheterization at Emory University Hospital, including patient history; evaluation of diagnostic reports for relevant findings; and follow-up procedures

## ADDITIONAL INFO

**Languages:** Filipino, English

**Software:** Python, R, PostgreSQL

**Personal Website:** [teddythepooh.netlify.app](https://teddythepooh.netlify.app)