Eric **Chou**

DATA QUALITY ANALYST

Atlanta, Georgia

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Education

Emory University

M.S. BIOSTATISTICS

University of Pittsburgh

B.S. BIOINFORMATICS

Experience

Metro Atlanta Rapid Transit Authority (MARTA)   *Atlanta, Georgia, USA*

DATA QUALITY ANALYST   *May 2022 - present*

- Developed and enhanced data management and governance processes behind data objects integral toward decision-making and enterprise asset management across several of MARTA's key business functions
- Designed and implemented strategies for data quality assurance in order to detect and correct data issues, and conducted root cause analyses of recurring issues to oversee systematic enhancement in reporting practices
- Implemented modern regression methods and data modeling approaches in R and Python to assess drivers and key factors behind MARTA's customer segmentation and ridership makeup
- Designed and developed user-friendly dashboards and report interfaces in PowerBI and R Shiny to facilitate on-demand insights into KPI trends for internal stakeholders across MARTA, including C-level executives

Emory University   *Atlanta, Georgia, USA*

DATA ANALYST   *Sep 2020 - May 2022*

- Used a combination of Stata, SAS, and R for cluster-based trajectory analysis of time series data for how pain intensity progresses in patients with sickle cell disease
- Transformed and analyzed large datasets of diagnosis data and longitudinal pain scores using Python and R to develop phenotypes for chronic pain and pain-related interference in sickle cell patients

University of Pittsburgh   *Pittsburgh, Pennsylvania, USA*

SYSTEMS PROGRAMMER   *Sep 2017 - Aug 2020*

- Worked as part of the Natural Product Drug Interactions (NaPDI) team to develop features for a data repository. Maintained and curated the web application's backend PostgreSQL infrastructure and helped manage its deployment via AWS EC2
- Processed natural product experiment data via a combination of SQL and Node.js code to implement user needs for data visualization and interface tools for the NaPDI data repository
- Performed large scale retrospective analyses on encounter-based patient data through transforming, loading, and subsetting an Amazon Redshift database via SQL and R

Skills

Programming: R ● Python ● Java ● SQL ● SAS ● Stata ● Java ● JavaScript

Data Visualization: Shiny ● Power BI ● Tableau ● Rmarkdown ● Jupyter ● ArcGIS

Software: Git ● AWS ● Docker ● Node.js

Select Publications

1. Bakshi, N., Astles, R., Chou, E., Hurreh, A., Sil, S., Sinha, C. B., Sanders, K. A., Peddineni, M., Gillespie, S. E., Keesari, R., et al. (2023). Multimodal phenotyping and correlates of pain following hematopoietic cell transplant in children with sickle cell disease. *Pediatric Blood & Cancer*, *70*(1), e30046.

2. Chou, E., Boyce, R. D., Balkan, B., Subbian, V., Romero, A., Hansten, P. D., Horn, J. R., Gephart, S., & Malone, D. C. (2021). Designing and evaluating contextualized drug–drug interaction algorithms. *JAMIA Open*, *4*(1), ooab023.

3. Birer-Williams, C., Gufford, B. T., Chou, E., Alilio, M., VanAlstine, S., Morley, R. E., McCune, J. S., Paine, M. F., & Boyce, R. D. (2020). A new data repository for pharmacokinetic natural product-drug interactions: From chemical characterization to clinical studies. *Drug Metabolism and Disposition*, *48*(10), 1104–1112.

Full list of 8 publications: `https://scholar.google.com/citations?user=gqYynN8AAAAJ&hl=en`