ERIC CHANDLER

Chicago, IL   echandle@alumni.cmu.edu

EDUCATION

Harris School of Public Policy, University of Chicago   Chicago, IL
Master of Science in Computational Analysis and Public Policy   June 2022

Carnegie Mellon University   Pittsburgh, PA
Bachelor of Science in Physics   May 2013

EXPERIENCE

Justice Project, University of Chicago   Chicago, IL
Data Scientist   July 2022 - Feb. 2024
- Assembled largest-ever dataset of police foundation grant making, contracting, and political activity
- Sent and tracked hundreds of FOIA requests to local governments for police-research contracts
- Coordinated traceable and reproducible data science workflows for small graduate research team
- Drafted academic paper sections, literature reviews, qualitative memos, and data visualizations
- Vetted and procured datasets from commercial, academic, and government sources

Urban Resiliency Initiative, University of Chicago   Chicago, IL
Graduate Research Assistant   Oct. 2021 - May 2022
- Fine-tuned cutting edge speech recognition models on real-life police radio communications dataset
- Discovered transcribers had more difficulty labeling speech with race, gender, and location words
- Explored methods for training on datasets with noisy and subjective ground truths
- Onboarded next research cohort to build upon our modeling pipelines and project log

Center for Data and Computing, University of Chicago   Chicago, IL
Graduate Teaching Assistant   Oct. - Dec. 2021
- Led skill-building and problem-solving sessions for undergraduate and graduate students

Center for Data and Computing, University of Chicago   Chicago, IL
Graduate Data Science Intern   June - Aug. 2021
- Estimated culpability for palm oil deforestation by partitioning and merging high-res satellite images
- Taught teammates how to scale their analyses with cloud and high-performance computing resources

Mansueto Institute for Urban Innovation, University of Chicago   Chicago, IL
Graduate Research Assistant   Mar. - June 2021
- Validated a system for calculating travel time on public transit between all U.S. census tracts

Concentric, Inc.   Cambridge, MA
Simulation Engineer   Sept. 2019 - Mar. 2020
- Prototyped and benchmarked methods to calibrate an agent-based social simulation
- Re-designed internal data structures, decreasing memory overhead by dozens of gigabytes
- Discovered and fixed a randomization error, reducing estimation bias by up to 60%
- Established credibility with new clients by leading interactive trainings on our proprietary models

Concentric, Inc.   Cambridge, MA
Software QA Engineer   July 2016 - Sept. 2019
- Verified and approved milestone software releases
- Created and maintained an automated full-stack testing suite for desktop and database systems
- Modernized a continuous integration system as team size and project complexity grew

McMaster-Carr Supply Company   Elmhurst, IL
Systems Developer   Sept. 2013 - June 2016
- Designed and deployed graph database of website traffic to identify user workflows and pain points
- Created tools to clone production software states onto local environments for safe triage of live bugs

Decisive Analytics Company   Arlington, VA
Software Engineering Intern   June - Aug. 2013
- Measured and identified performance bottlenecks in an image classification routine in Java

McWilliams Center for Cosmology, Carnegie Mellon University   Pittsburgh, PA
Undergraduate Research Assistant   Aug. - Dec. 2012
- Parallelized computing the statistical distribution of inter-galaxy distances using a GPU and CUDA

DIII-D National Fusion Facility, General Atomics   San Diego, CA
Research Intern, National Undergraduate Fellowship Program   June - Aug. 2012
- Statistically reconstructed cross-sectional estimates of plasma density from x-ray photographs

Department of Physics, University of Münster   Münster, Germany
Research Intern, D.A.A.D. Rise Scholarship   June - Aug. 2011
- Simulated interstellar dust cloud formation in a super-cooled ultra-high vacuum chamber

PUBLICATIONS & PRESENTATIONS

(Pending Review) Shachter SY, **Chandler E**, Misra K, & Vargas R. (2024, March 1). "The Social Structure of Private Donations to Police." https://doi.org/10.31235/osf.io/pfjmy

Lai S, **Chandler E**, Graziul C. "Conversation recognition in mixed stream audio data." 8th International Conference on Computational Social Science, Chicago, IL, July 19-22.

Cowan, Michael, and **Eric Chandler**. "The Competitive Dynamics of Political Heuristics." Southern Political Science Association 2021 Annual Meeting, January 6-9.

SKILLS

Programming Languages
Python ∣ R ∣ Java ∣ SQL ∣ C ∣ C# ∣ Haskell

Infrastructure
unix shell ∣ git ∣ Jenkins ∣ Docker ∣ AWS ECS

Analytical
social network analysis ∣ causal inference ∣
spatial joins ∣ web scraping ∣ machine learning