Daniel Silva-Inclan

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EDUCATION

UNIVERSITY OF CHICAGO
M.S. in Computer Science
Conc: High-Performance Computing
August 2020 | Chicago, IL

B.S. in Statistics
B.A. in Economics
2012 - 2016 | Chicago, IL

SKILLS

PROGRAMMING
Proficient:
Python (pandas, numpy, numba, sklearn)
R (tidyverse, shiny, leaflet, data.table)
Go • AWS • git • SQL • MySQL • bash
TensorFlow • STAN • Docker • vim
Apache (Hadoop, Kafka, Spark, Hive,
HBase, HDFS, etc.) • GIS • LaTeX
C/C++ • Julia • Haskell • Scheme •
Matlab • Stata • Java

COURSEWORK

GRADUATE
Machine Learning
Applied Linear Methods
Stochastic Processes
Parallel Programming
Product Management
Big Data

UNDERGRADUATE
Honors Economic Analysis
Honors Econometrics
Time Series
Professional Writing
(Little Red Schoolhouse)

OPEN-SOURCE

BUG FIXES
Tensorflow/privacy – ML + differential
privacy models
tigris – Tidystyle api to Census shapefile
tidycensus – Tidystyle api to US Census

INTERESTS

Hobby chef exploring sous vide dishes
Top 10% Age of Empires 2 DE
(Random Team Map)
History and digital cartography

EXPERIENCE

RESEARCH ASSISTANT | Becker Friedman Institute
June 2018 - June 2020 | Chicago, IL
Research Assistant in Open Source Economics Group.
- Developed parallelized and scaleable differentially private and synthetic data generation process for PUF dataset (tax data).
- Developed stop-gap data deanonymizer to process aggregated Census data for tax analysis.
- Developed ML-based error correction pipeline proposal for editing tax documents for the Internal Revenue Services (IRS).

DATA SCIENTIST | Civis Analytics
Sept 2016 - Sept 2017 | Chicago, IL
Data Scientist in Research and Development team.
- Researched & developed geospatial capabilities including creating a pipeline of spatial analysis (R, Python, QGIS, PostgreSQL), and developed interactive map plotting tool for internal and external use.
- Developed unsupervised snack advertisement pipeline for Fortune-50 food company and Boston Consulting Group to cluster and visualize customer segmentation and determine opportunities for digital advertisement.
- Developed media-mix pipeline to verify effectiveness of Verizon digital marketing campaigns through heterogeneous treatment effect modeling.
- Developed app and report to score and visualize gerrymandering metrics across local and state jurisdictions in the US.

RESEARCH ASSISTANT | Becker Friedman Institute
Professors Victor Lima, Gaurab Aryal, and John List
Apr. – May 2015, Apr. – Aug. 2016 | Chicago, IL
Research Assistant for various professors.
- Simulated Shapley-Shubix and Banzahf power indices in R to analyze strength of political coalitions within the Chilean Government.
- Simulated a nonparametric price discrimination model in Matlab and R where consumers have multidimensional private information on several goods.
- Performed data entry and cleaning in Excel for major field experiment conducted in Chicago on the economics of early childhood interventions.

RESEARCH

HOUSING MARKET WITH SCHELLING SEGREGATION |
Undergrad Honors Economics Thesis
Expanded Schelling Segregation model with economic controls of the city of Chicago and produced an open-source R package and RShiny app. Presented thesis at the 2016 Joint Statistical Meeting (JSM) of the American Statistical Association in Chicago. SPAAC Finalist.

EXTRACURRICULARS

HarrisHack 2020 (Team Captain)
Website and pipeline to create compliant voting districts optimized across various gerrymandering indices.

Tutoring
Tutored three under-served high school students in Math and SAT prep on pro-bono basis following my role as a teaching assistant at the University of Chicago's Collegiate Scholars Program for two summers.