

Eric Son

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EDUCATION

University of Chicago | Chicago, IL Sept 2019 – June 2021
Master of Science, Computational Analysis and Public Policy (CS Department & Harris School)
Coursework: Python Programming, Statistics, Machine Learning, Data Visualization, Database Systems, Big Data Architecture, Cloud Computing

College of William & Mary | Williamsburg, VA May 2015
Bachelor of Arts, Economics and Film/Media Studies

EXPERIENCE

Data Engineering Fellow | National Institutes of Health | Bethesda, MD June 2020 – Jan 2021

- Worked with engineers to build ETL infrastructure, wrote MySQL queries to move 10 years of data into server
- Designed Django web APIs to display NIH's \$70M energy consumption data and budget projection
- Created R Shiny visualization and reporting tool that summarizes energy usage and cost data

Data Research Assistant | Center for Municipal Finance | Chicago, IL Jan 2020 – June 2020

- Built machine learning pipelines with R that outputs automated reports for areas with regressive tax assessments
- Created reports with Seaborn and Altair visualizations about assessments completed by the county

Strategic Targeting Analyst | EAB Global | Richmond, VA Oct 2016 – July 2019

- Key achievement: automated data collection process for 250+ clients by 90% through Python and Selenium, leading to one billion emails getting sent out a day earlier than in previous years
- Wrote SQL queries to identify opportunities for 80+ clients, developed ArcGIS and Tableau reports
- Performed feature engineering on 50 schools to develop statistical models and improve performance

PROJECTS

School Metrics Dashboard (D3, JavaScript, HTML/CSS) March 2021
Dynamic visualization that shows Chicago Public School performance metrics and demographics

- Created interactive dashboard using D3.js to display enrollment, graduation rates, and demographics data

Chicago Streets Stats (Scala, Hive, HBase, Kafka, AWS, Java, Node.js) – [Link](#) Jan 2021
A full-stack big data web API that displays Chicago street congestion, crash, and traffic violation data

- Implemented the Lambda Architecture to store historical data in HBase and ingest real-time data into Kafka
- Built the front-end with Node.js that allows users to select from a searchable drop-down list
- Used S3 to host the static website, EC2 instance to run the application, and CodeDeploy to release

City of Chicago Salaries (R, Shiny, JavaScript, Heroku) – [Link](#) Nov 2020
Web application that shows annual salaries for Chicago municipal employees

- Used JavaScript and D3 to make graphs, and R to make searchable table of each annual/overtime salaries

U.S. Energy Consumption (Django, Python, Pandas, Seaborn, SQLite, Heroku) – [Link](#) March 2020
Search web application that displays U.S. state energy consumption visualizations since 1950

- Built web scraper/crawler and API to pull energy data and stored them in SQLite database

SKILLS

Programming: Python, R, Java, HTML/CSS, JavaScript, Node.js
Frameworks and Databases: Django, Bottle, Flask, MySQL, NoSQL, PostgreSQL
Tools: AWS, Hadoop, MapReduce, Hive, Spark, HBase, Kafka, Thrift
Visualization: D3, Shiny, Seaborn, Altair, Tableau, ArcGIS, Qlik, Power BI