Eric Son

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SUMMARY

Developer with 4 years of experience in data-intensive applications, automation tools, and machine learning deployments. Background in big data technologies such as AWS, Hadoop, Spark, Hive, and Kafka.

EXPERIENCE

National Institutes of Health   Bethesda, MD
Data Engineering Fellow   June 2020 – Dec. 2020
  - Built a Django web applications to display NIH's $70M energy consumption data and budget projections
  - Worked with lead engineers to resolve data discrepancies, wrote MySQL queries to move data into server
  - Created R Shiny visualization and data output dashboard that summarizes energy usage and cost avoidance data

Center for Municipal Finance   Chicago, IL
Research Assistant   Jan. 2020 – June 2020
  - Built machine learning pipelines with R that created automated reports for counties with regressive tax assessments
  - Created reports with Seaborn and Altair visualizations about assessments completed by Cook County

EAB Global   Richmond, VA
Strategic Targeting Analyst   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 and developed ArcGIS and Tableau reports for presentation
  - Applied predictive analytics model across enrollment pipeline for clients to meet incoming class goals, with a focus on direct marketing campaign to prospective students and recent high-school graduates

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PROJECTS

Chicago Streets Stats – Big Data AWS web app that displays Chicago street congestion, crash, and traffic violation data
  - Implemented the Lambda Architecture to store historical data in HBase and ingest rea-time traffic 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 – Shiny web app that shows annual salaries for Chicago municipal employees
  - Used D3.js to make an interactive tree map and R to make searchable table of each annual/overtime salaries

Housing Affordability Prediction – predicts housing affordability in Chicago neighborhoods using price-to-income ratio
  - Ran machine learning models including Linear, Ridge, Lasso, Decision Tree, and Random Forest Regressor

U.S. Energy Consumption – Django web app that displays U.S. state energy consumption trends since 1950
  - Used web scraper/crawler and API to pull energy data and stored them in SQLite database

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EDUCATION

University of Chicago   Chicago, IL
MS in Computational Analysis and Public Policy (CS Department & Harris School)   Expected June 2021
Relevant coursework: Databases, Machine Learning, Discrete Math, Big Data, Data Visualization

College of William and Mary   Williamsburg, VA
BA in Economics and Film/Media Studies   May 2015

SKILLS

Programming: Python, R, Java, Stata, HTML/CSS, JavaScript   **Big Data**: Hadoop, Hive, Spark, HBase, Kafka
Web Framework: Django, Bottle, Flask   **Database:** PostgreSQL, MySQL, SQLite
Visualization: Seaborn, Altair, Tableau, ArcGIS, Qlik, Power BI   **Other:** Adobe Creative Suite, Apple Final Cut Pro