**RY SONKO**

Brooklyn, NY - (845) 287-9591

[rsonko04@gmail.com](mailto:rsonko04@gmail.com) - github.com/ryreadme

**PROFESSIONAL SUMMARY**

Dynamic and detail-oriented software engineer with 2+ years of experience in Python programming with a passion for computer science and developing innovative programs that will enhance our products, services, and experiences. Eager to apply data engineering and full-stack experience to your firm. In previous roles, successfully boosted retention rate by 15% and improved site responsiveness by 40%.

**SKILLS**

Python, Javascript, Pandas, Django, RESTful APIs, Git, HTML/CSS, React, PostgreSQL, Selenium, Machine Learning, Object Oriented Programming, Problem Solving, Data Structures & Algorithms, AWS, WSGI

**WORK EXPERIENCE**

***Data Engineer*, University of Virginia Sustainability 01/2020 - 05/2020**

* Systematized move-in/move-out day processes in collaboration with a team of 4 data engineers for University of Virginia Sustainability reducing waste by 20%.
* Extrapolated on current waste trends and reports simulating future aggregate waste to identify 2 “red” and “orange” zones in need of optimization to meet 2025 waste reduction targets.
* Developed framework, metrics, and reporting to ensure progress can be measured, evaluated and improved.

***Data Engineer*, C4K01/2020 - 05/2020**

* Classified data by “natural” clustering into new attendance groups using unsupervised machine learning to overhaul C4K’s nondescript grouping system, and decreasing C4K’s high turnover rate by 15%.
* Prototyped a KNN (K-Nearest Neighbors) model predicting month(s), age(s), and reason(s) for departing high schoolers from C4K; thereby increasing data descriptiveness by 50%.
* Support the development of performance dashboards that encompass key metrics to be reviewed by non-profit founders and senior management.

**PROJECTS**

**Rotation**

* Designed a full-stack web music sharing app with Python, JS, RESTful APIs, and integrated Spotify’s third party API where users can create, join, and update rooms; and choose the number votes required to change a song.

**Google Maps Dakar**

* Re-engineered a clone of Google Maps using Mapbox’s API, JS, and HTML/CSS improving Dakar's navigation for vacationers by designating holiday hotspots, adding geolocations, and yielding an estimated 30% uptick in travel efficiency.

**A\* Search Algorithm**

* Virtualized the a\* search algorithm with Python and pygame starting from a specific starting [node](https://en.wikipedia.org/wiki/Node_(graph_theory)) of a graph and finding a path to the designated ending node in either the least distance travelled or the shortest time.

**EDUCATION**

**B.A. Foreign Affairs May 2020**

University of Virginia