Reginald Toure
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Skills
Software Development | Developing Project Plans | JAVA, R, HTML, CSS, JavaScript | Data Representation

Education
Virginia Polytechnical Institute – Falls Church, VA
Master of Computer Science and Applications, Expected Graduation 2025

Virginia State University - Petersburg, VA
Bachelor of Science in Computer Science, Graduated May 2023
G.P.A.: 3.9/4.0
Activities: Virginia State University Coding Club member; Trojan Gaming Club Vice President

Northern Virginia Community College - Annandale, VA
Associate of Arts in General Studies, Graduated May 2021

Work/ Internship Experience
Social Data Analytics at Virginia State University
Virginia State University - Petersburg, VA
Graduate Fellow, June 2023- September 2023
Assisted Dr. Omar Faison of Virginia State University in tutoring students on using R to perform data analysis on publicly available data to conduct their own independent research projects at the intersection of statistics, computation, and the social sciences. See research below.

Coding it Forward Civic Innovation Corps
Mayor's Office of Budget & Innovations -City of Los Angeles, CA
Data Analysis Intern, Mayor's Office of Budget & Innovation, May 2022 - September 2022
Selected from an applicant pool of 1,600 students with a 10% acceptance rate as part of the Civic Innovation Corps, a Coding it Forward fellowship that connects mission-driven technology students to opportunities in local government.

- Analyzed, cleaned, and compiled data on home mortgage applicants in Los Angeles using the Federal Financial Institutions Examinations Council's Home Mortgage Disclose Act data.
- Provided geographic and analytical visualizations of the relationship between race and mortgage denials and disaggregated by reasons for application and rejection to better understand racial equity in the city.
- Responsible for producing data analyses, dashboards, and apps that provide insights to city leaders and civilians.

Mozilla Foundation HBCU Collaborative Curriculum Program
College of Engineering & Technology, Virginia State University - Petersburg, VA
Work Study Intern, May 2021- December 2021
Received direct mentoring from Mozilla experts for learning modern software engineering practices that balance ethical considerations. Developed collaboration skills in software design and development, programming, user experience, product testing, designing for accessibility, and prototyping.

- Developed an extension for the Mozilla Firefox browser.
- Used HTML and JavaScript to create a social media extension using the Twitter and Facebook APIs.

Data Science for the Public Good Program
University of Virginia Biocomplexity Institute - Charlottesville, VA
Computer Science Intern, June 2020 - September 2020; June 2021- September 2021
As a member of small, transdisciplinary teams, conducted research at the intersection of statistics, computation, and the social sciences for public sector stakeholders. See research below.

Research Experience

"Exploring The Continuum of Urban to Rural and The Influence on Health Outcomes on a County Level"

The social determinants of health are a set of social, environmental, and personal factors that determine a person or community's health outcomes. One of the environmental factors that can be considered is rurality, a term defined by location relative to major population centers and other factors. Research found that rurality is associated with several negative health outcomes health factors, however rural is not a static concept but a continuum. Thus the purpose of this project was to determine if levels of rurality can be determined and correlated with local health outcomes. My responsibilities/skills:

- Conducted literature review and defined research question, hypothesis, and variables
- Wrangled county-level health data from CDC PLACES Project and rural/urban classification data from Office of Management and Budget
- Compared rurality levels to various health outcomes and created visualizations of results
- Presented process and findings at the final symposium with academics, government, and industry professionals

"Equity in Access to Parks in Chesterfield County, VA."

Planners in the Chesterfield Department of Parks and Recreation (DPR) needed a way to measure equity in access to their facilities as the population increases, becomes more diverse, and ages. We used DPR's GeoSpace resources to obtain detailed location and facilities' amenities data for their parks. A rudimentary "quality score" was developed by ranking each park's qualities based on quality and type of amenities Our literature search determined that analyzing vulnerable population demographics would yield the best variables for research on equity. We used the US Census's 5-Year American Community Surveys and GeoSpace information to determine the quantity of vulnerable population demographics on a census tract level. We then estimated the number of people of these groups living closest to the parks in their census areas. My specific role:

- Managed the project: assigned tasks, managed workflow, reviewed deliverables, liaised with lead professors
- Gathered resources on park amenities - - combined and overlaid with demographics to identify disparities in race, incomes, etc.
- Used US Census API Key and R Studio to pull more disaggregated data for deeper analysis
- Led presentation of process and findings at the final Symposium with academics, government, and industry professionals
- Honed skills in coding and data visualization

"Availability of Services: Evolving Demographics, Housing and Traffic in Rappahannock County"

We used publicly available data from the American Community Survey (ACS) to explore questions and concerns held by stakeholders in Rappahannock County, Virginia. We created a county profile for Rappahannock that displays information about age, race, income, employment, housing prices, and more. We analyzed traffic volume data from the Virginia Department of Transportation to identify areas of increased or decreased traffic in the last ten years (2010-2020). Finally, we aggregated community services and resources into a single dashboard that allows us to visualize the availability of services to residents of the county. Using the county profile, traffic volume data, and the service data, we are able to provide data-driven descriptions of service provision in Rappahannock County, Virginia during the last decade. My responsibilities/skills:

- Pulled data on age, incomes, housing, race, education attainment from US Census Bureau databases
- Created maps and graphs using R Studio
- Contributed to the digital poster session
- Skills Strengthened: R Studio, coding, data visualizations, teamwork

"Factors Contributing to Health Care Inequities in Petersburg, VA."

Petersburg, VA consistently ranks at or near the bottom of the County Health Rankings for the Commonwealth of Virginia. We provided data analysis for the Petersburg Wellness of Consortium (PWC), a collaboration of local stakeholders focused on improving health outcomes. The research explored how disparities in income and access to food, health care, and healthy lifestyle options may relate to the health outcomes observed in Petersburg. My specific responsibilities/skills:

- Researched and collected location data on medical facilities, EBT accepting stores, gyms, and bus routes

- Used QGIS mapping software to visually connect facilities with demographic data collected
- Prepared data visualization for poster session
- Led presentation of results to PWC and symposium attendees

"Demonstrating the Value of the Appomattox River Trail."

FOLAR, a local non-profit organization needed data to make the case for development of a 25-mile trail system along the Appomattox River for walking and biking. We explored a range of data and made the case for developing the local walking and biking infrastructure in terms of economics, transportation, and health outcomes. My responsibilities/skills:

- Collected location data for existing parks and trails near the 25-mile route being contemplated
- Collected location data for businesses near the 25-mile route
- Prepared visuals based on the data
- Presented results at final symposium and successfully fielded questions on methodology, etc.