



# ENVIRONMENTAL INJUSTICE

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Creative Coding  
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*Disproportionate exposure of communities of color and the poor to pollution, and its concomitant effects on health and environment.*

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## PROJECT STATEMENT

My project aims to represent Chicago's air quality in different communities based on research done by the NRDC (Natural Resources Defense Council) and by the City of Chicago's Air Quality and Health Report. The purpose of my project is to bring awareness of this inequality, and to bring change to achieve environmental justice to the city of Chicago through the use of typography in virtual reality.

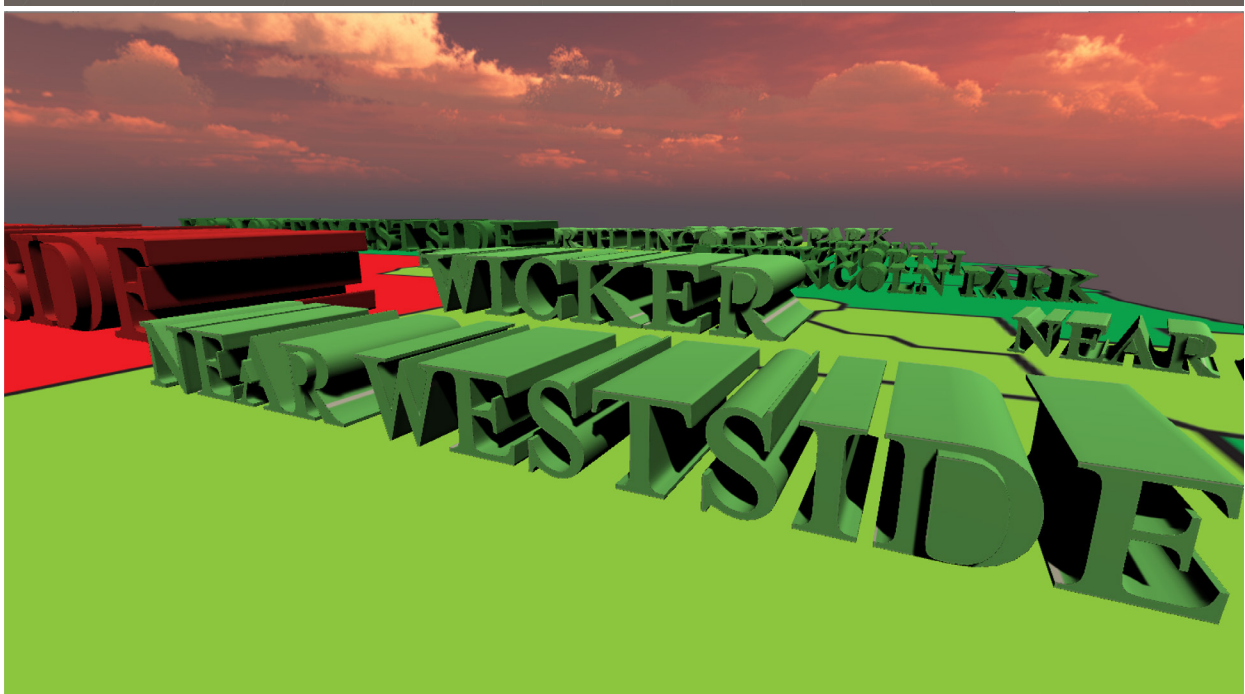
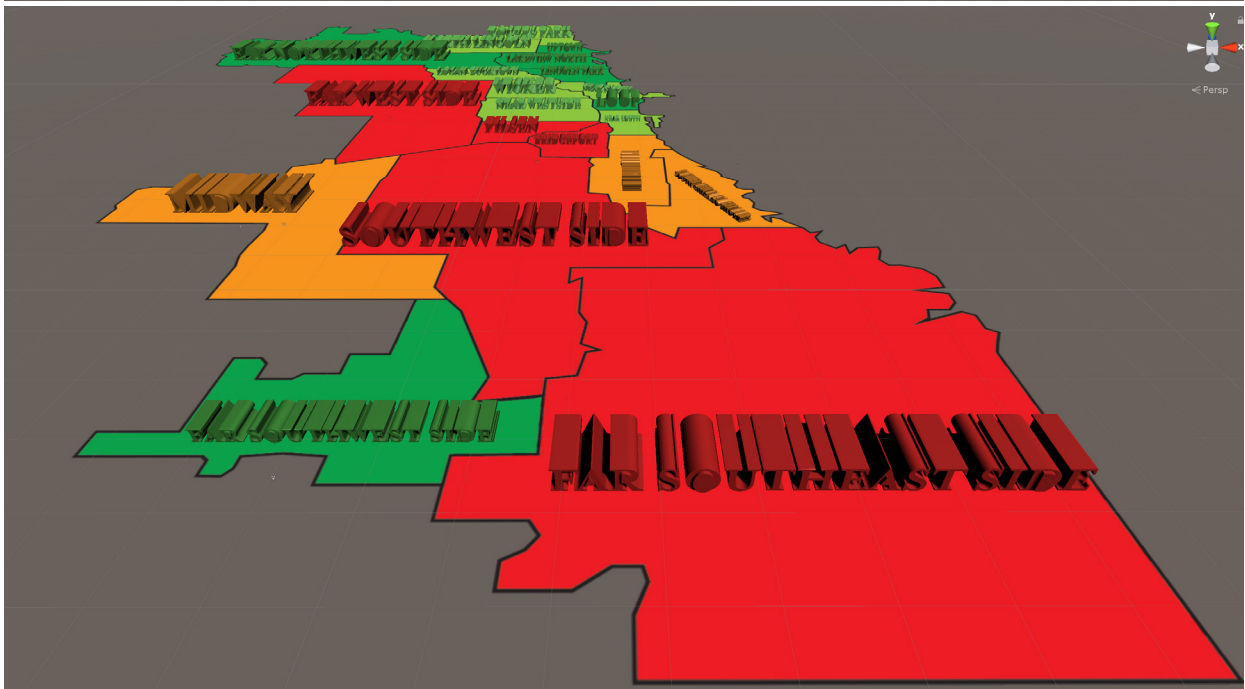
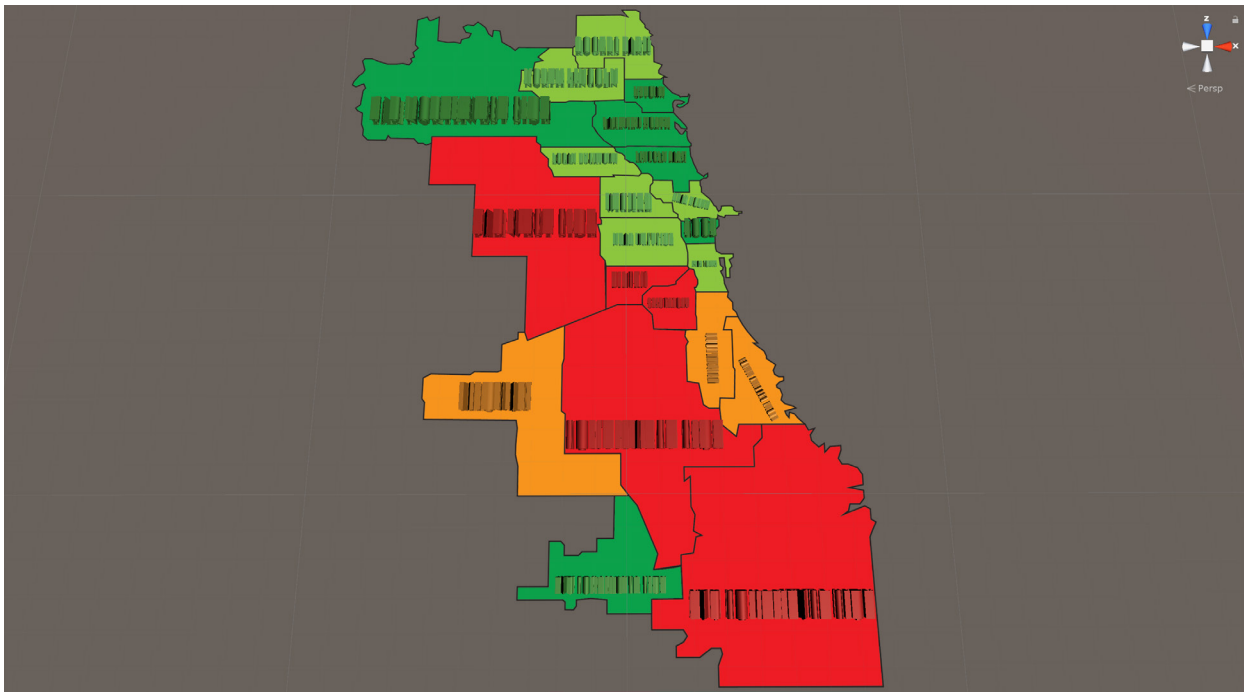
Air quality in Chicago has been getting worse over the years, and recently it recorded the worst unhealthy air streak in 10 years. One of the main issues is that air quality varies throughout the city, where low-income and people of color are the most vulnerable groups to air pollution and its health issues.

## VR SCENE

In my VR scene, the first thing that the user will see is a birds eye view of the map of Chicago, where it shows air quality represented in areas by 3 different colors, red as being the areas most vulnerable and affected by air pollution, orange representing moderately affected areas, and two shades of green representing the least affected areas having the healthiest air quality.

## INTERACTIONS

After seeing the map, the user will land on the map, and be able to walk through Chicago's areas. One of the interactions is when the user walks through the area text name, a text box will pop up providing information of that area. The second interaction is audio, as the user walks through the areas, sounds associated with that area will play. The final interaction is the user can press key words based on the color of the area the user is standing on to show air pollution particles. (R) in red areas, (O) in orange, and (G) in green areas.



## WICKER PARK

- Less vulnerable to air pollution
- Average household income of \$136,956.00
- Environmentally friendly
- Eco-friendly homes and shops
- Lots of access to public transportation

## BRONZEVILLE

- Moderate air quality
- Low income area
- Community of color
- Legacy of industrial pollution and poor air quality
- Exposure to air toxins
- High prevalence of asthma
- Disproportionately high levels of respiratory diseases

## SOUTHWEST SIDE

- Low income area
- Community of color
- Air quality unhealthy for sensitive groups
- Long-term impacts of coal pollution.
- Higher risks for health problems.
- Inundated by warehouse diesel trucks.
- Threat of corporate polluters moving into the neighborhood.

**REFERENCES  
DATA RESEARCH**

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FOR SOUNDS**

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**TYPOGRAPHY  
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**Mrs Eaves OT BOLD**