

Overall, I really enjoyed working on this project. I spent a lot of time brainstorming unique weather data use cases—ideas in agriculture, marine biology, and climate change. While they were interesting, none of them truly grabbed me. Then one morning, I woke up congested, with pounding pressure in my temples, and it hit me: allergies.

I grew up in asthma and allergy doctors' offices—not only as a patient but because my mom led research and clinical trials at her practice. I've been a chronic allergy sufferer for as long as I can remember: grass, trees, weeds, mold—you name it. For about nine months of the year, I'd find myself scrambling for Allegra, Zyrtec, and Flonase when symptoms came out of nowhere.

That's why building something that could help me avoid some of those flare-ups felt both meaningful and exciting. I love solving real-world problems, and this project was no exception. My only frustration was the delay in receiving my historical dataset—it took nearly three weeks, putting me behind from the start. With that time crunch, I couldn't explore as many ideas or features as I'd hoped.

For example, in my machine learning portion, I implemented linear regression. In hindsight, I suspect it wasn't the best fit for my predictions. If I'd had more time, I would have experimented with ARIMA or random forest to see which performed best. While my model does technically "predict," the results weren't quite what I envisioned. Still, getting something functional was a win I'm proud of.

This project confirmed my interest in the data science and engineering space. As much as I love writing software, I see even more potential and excitement in these fields. Over

the next few months, I plan to dive deeper into NumPy and scikit-learn to see where this path leads.