Disease forecasting project ideas

Intermediate · A few weeks · Free · Project idea

Online version: https://ai-safety-sandbox.vercel.app/projects/biosecurity-forecasting-ideas/

Summary

Help forecasters do better: document past model failures, port useful tools, teach the maths, or build early-warning datasets.

Why it matters

Good forecasts drive good decisions in the first weeks of an outbreak, when they matter most.

What you will have at the end

A website, tool, dataset or teaching resource.

Ideas to choose from

- A website showcasing historical forecasting-model failures
- What do disease forecasters find hardest?
- Which R epidemiology packages should be ported to Python?
- Better tooling and teaching for the maths of epidemic forecasting
- A GIS + virology dataset linking climate change and disease
- Risk-assessment tools for comparing biosecurity measures

How to start (tick each box as you go)

- [ ] **1. Read the list of ideas above and pick the one you would most enjoy.**
- [ ] **2. Check the source to see whether someone has already done it.**
- [ ] **3. Scope it down to something you can finish in your available time.**
- [ ] **4. Do a quick first version and show it to someone.**
- [ ] **5. Write up what you made and share it with the source authors.**

Source and links

Hatta & Bazarragchaa — A hundred project ideas in biosecurity (2025)
https://casualphysicsenjoyer.com/Essays+in+progress/Biosecurity/A+hundred+project+ideas+in+Biosecurity

When you have finished

Write a few paragraphs on what you did, what you found and what you would try next, and share it with a friend, your society or online.

Courses, mentors, small grants and communities:
https://ai-safety-sandbox.vercel.app/next-steps/

Questions? Ask in AI Safety Cardiff University (AISCU): https://aiscu.org/

Notes