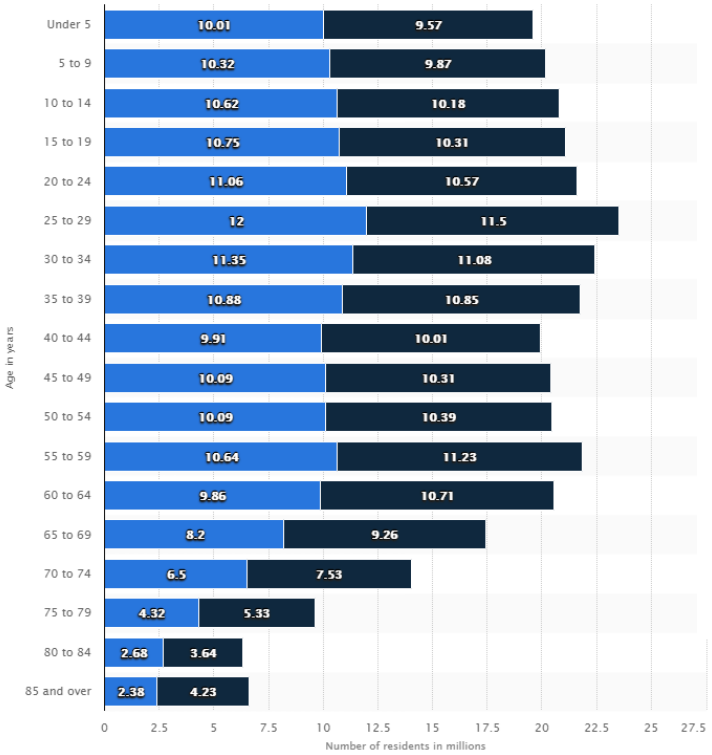
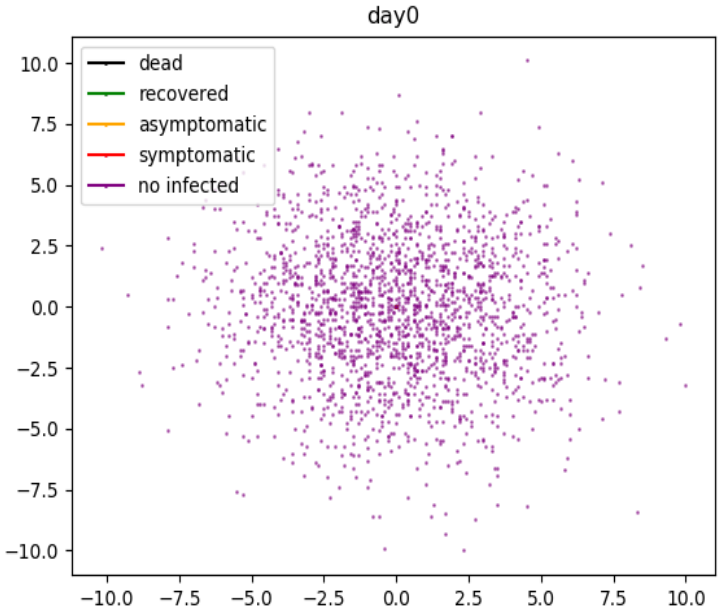
Kinetic simulation of disease transmission

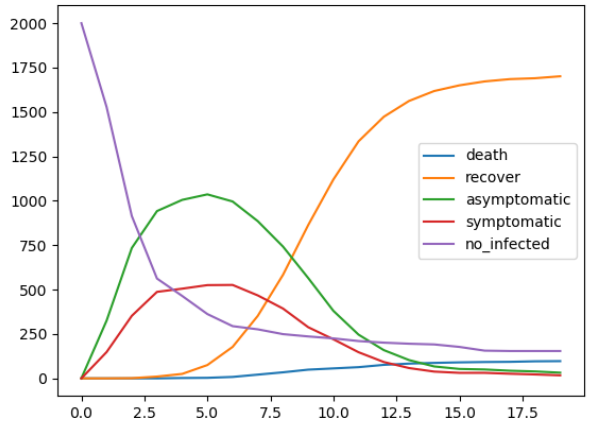
Max Curie





Kinetic simulation of disease transmission(Python)

Max Curie



Other idea

- GPT-3
- Blockchain voting system
- WebMD diagnostic UI
- Data acquire and verification
- Context of article and video suggestion bot

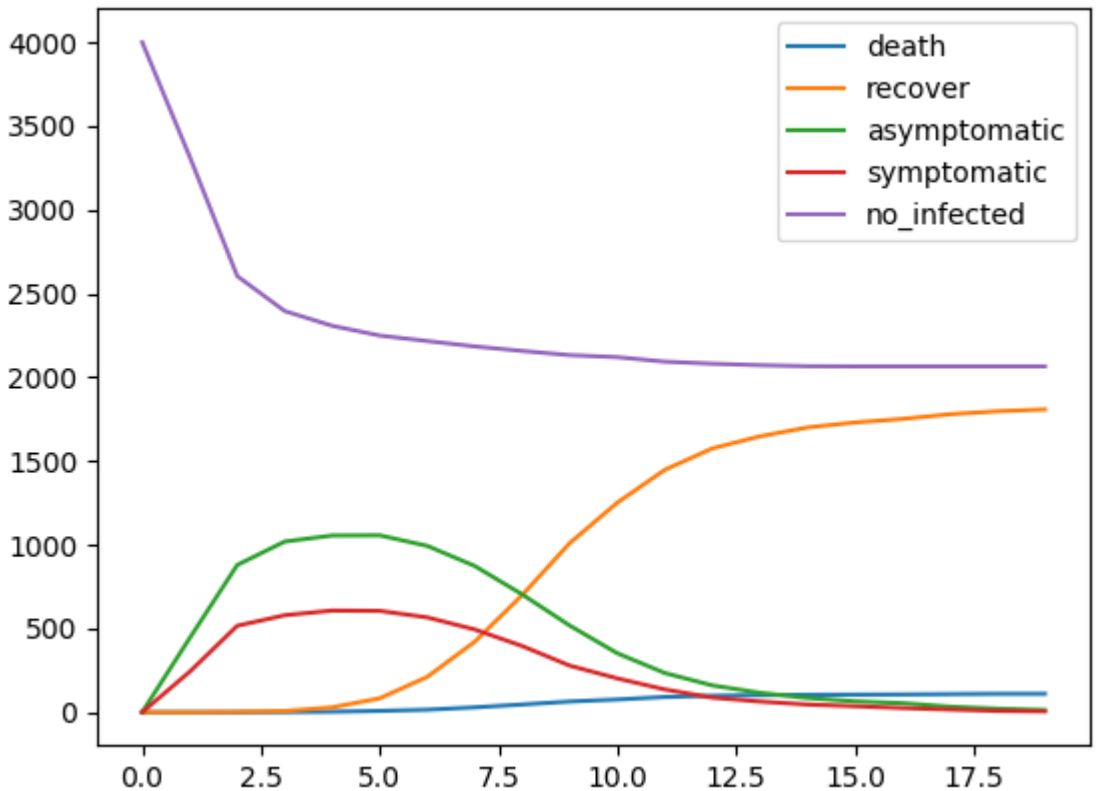
- Analyze data set from CDC for age distribution of the disease
  - Realistic density distribution
  - Age distribution(death, asymptomatic, symptomatic)
  - Modeling commute
- Analyze data for indirect impact of COVID
  - Traveling, moving(mobility)
  - Mental health
  - Physical health not related to COVID
- Propose strategy for future plague prevention
- And more!

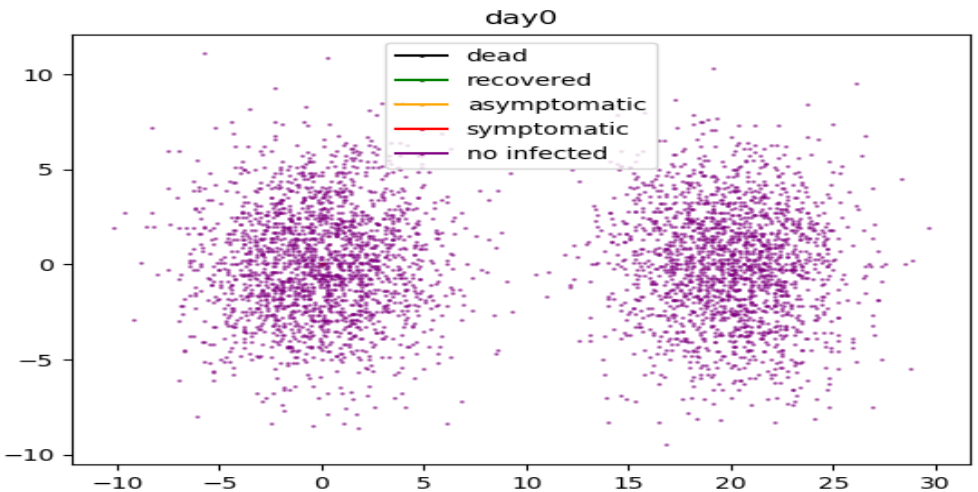
Suggestions to other groups

- GPT-3 from https://openai.com/blog/openai-api/
  https://youtu.be/_x9AwxfjxvE
- Blockchain voting system
- UI for symptom descriptions and guidance for accurate WebMD diagnostic
- Data acquire and verification using basic statistic theory (Benford's law) https://en.wikipedia.org/wiki/Benford%27s_law
- Context of article and video suggestion bot.

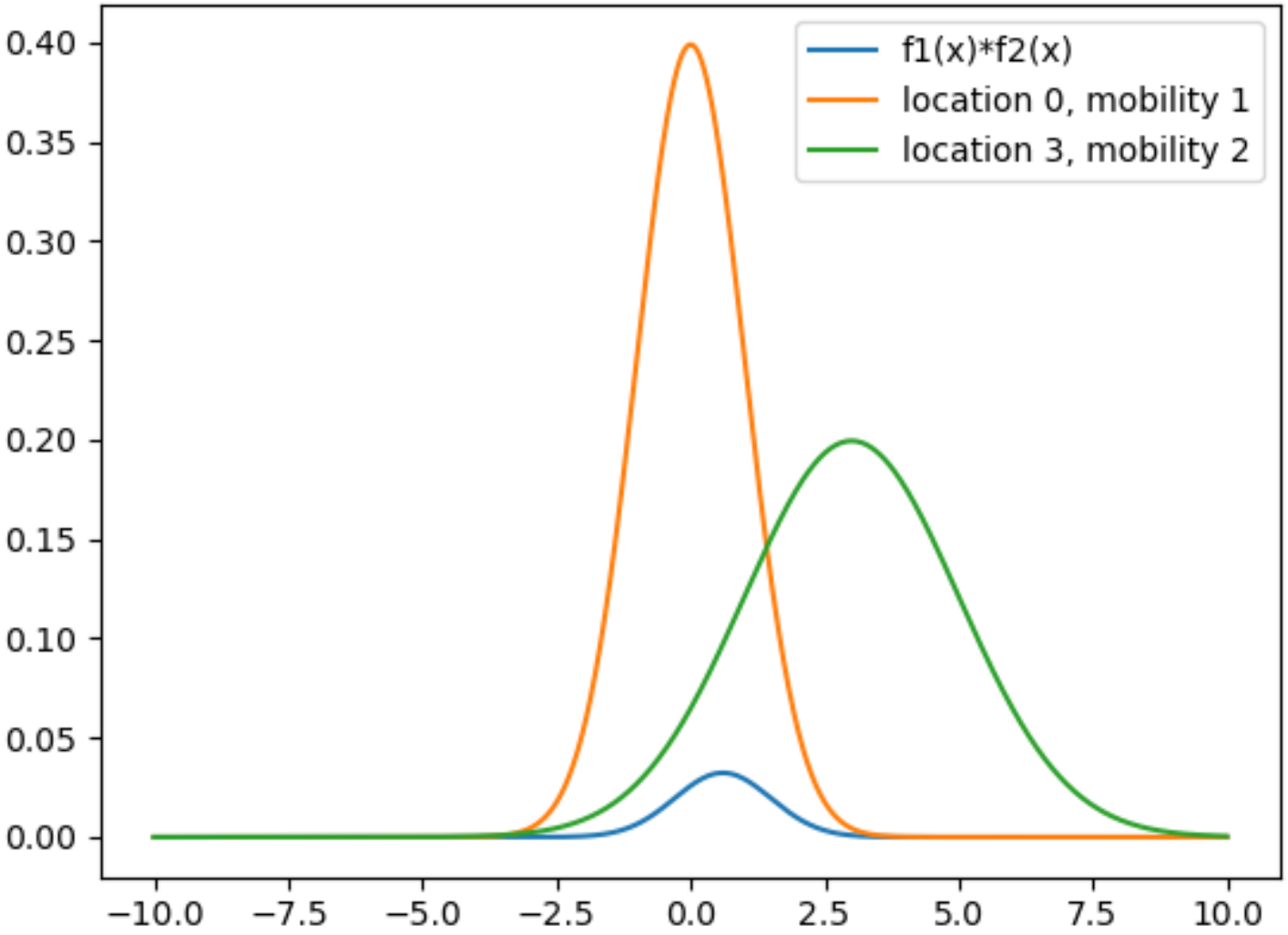
(Me: “I cannot love physics enough” ===>

Media: “Breaking news, Max cannot love physics”)


death
recover
asymptomatic
symptomatic
no_infected
4000
3500
3000
2500
2000
1500
1000
500
0
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5

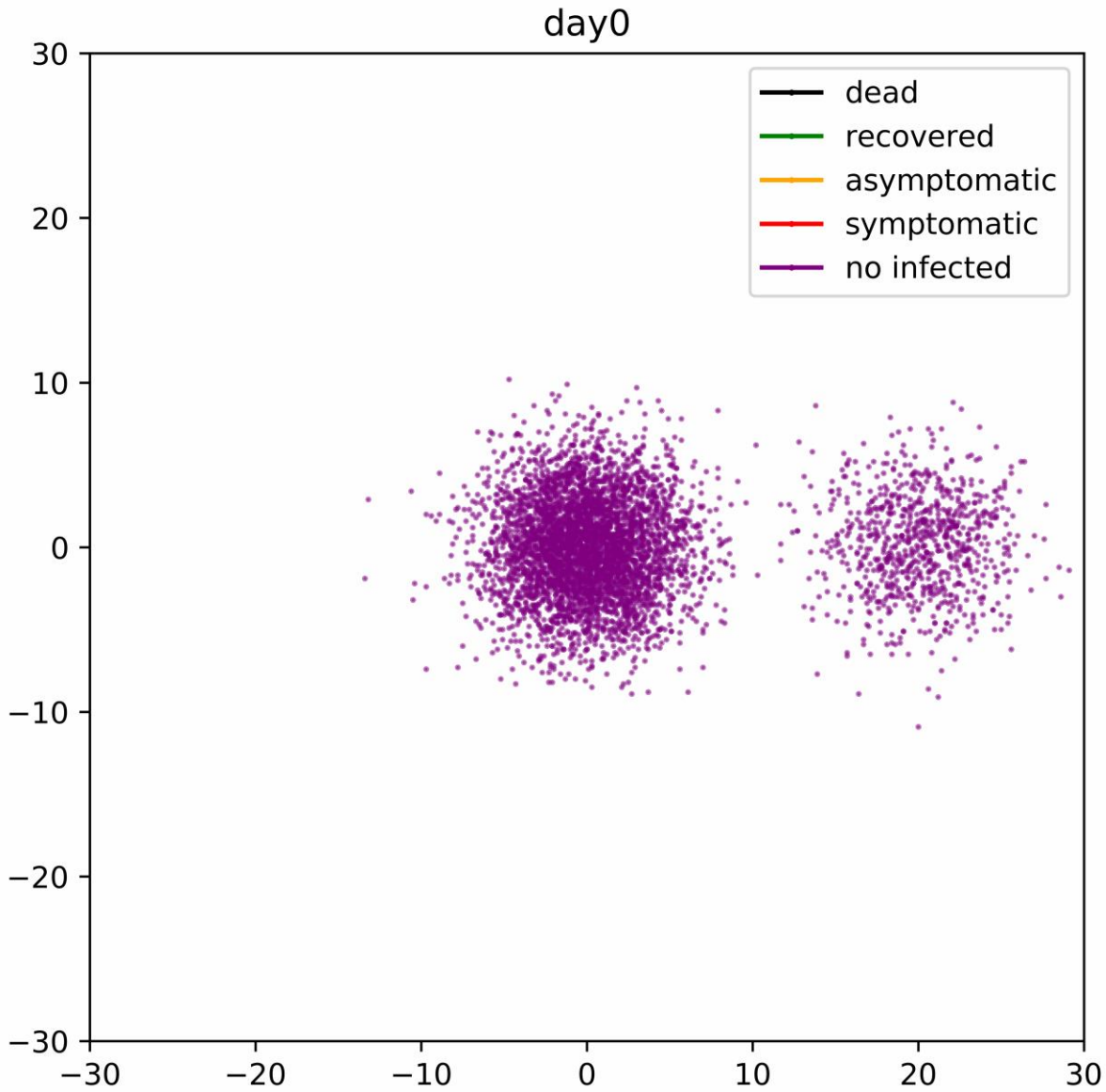

day0
dead
recovered
asymptomatic
symptomatic
no infected
10
5
0
−5
−10
−10
−5
0
5
10
15
20
25
30

Cross section calc



Work options during the Hackathon

- Analyze data set from CDC for age distribution of the disease
  - Realistic density distribution
  - Age distribution(death, asymptomatic, symptomatic)
  - Modeling commute
- Analyze data for indirect impact of COVID
  - Traveling, moving(mobility)
  - Mental health
  - Physical health not related to COVID
- Propose strategy for future plague prevention
- And more!


day0
dead
recovered
asymptomatic
symptomatic
no infected
30
20
10
0
−10
−20
−30
−30
−20
−10
0
10
20
30