

Particle Pals

Final Presentation

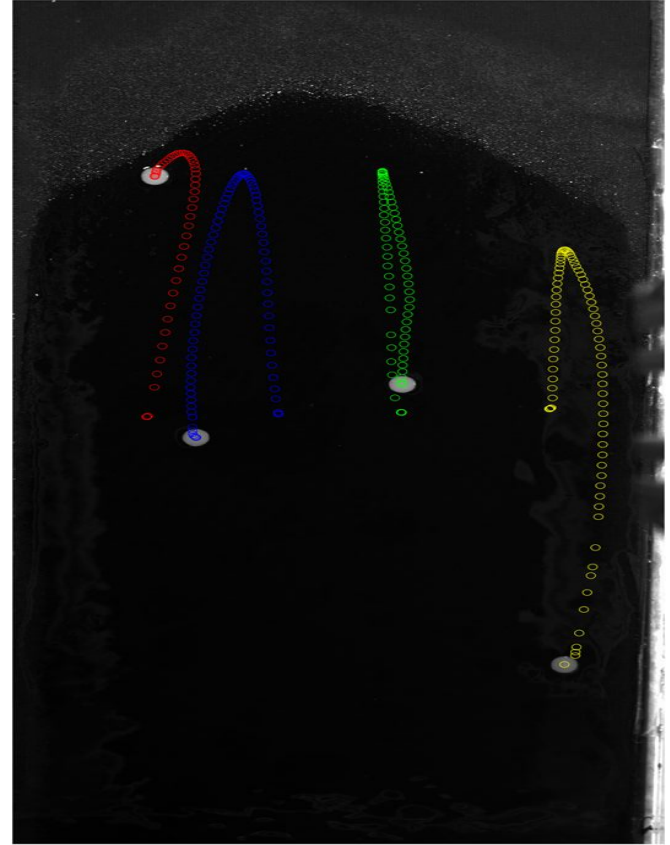
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Background

Problem: Properly track videos and store relevant data

Goals:

- Create a GUI for previous particle tracking code
 - Easy to use interface
 - Versatility
- Add functions for vector analysis and data manipulation



Use Cases

Tracking:

- Track particles in a mean flow
- Isolate vehicles or people in traffic cam videos

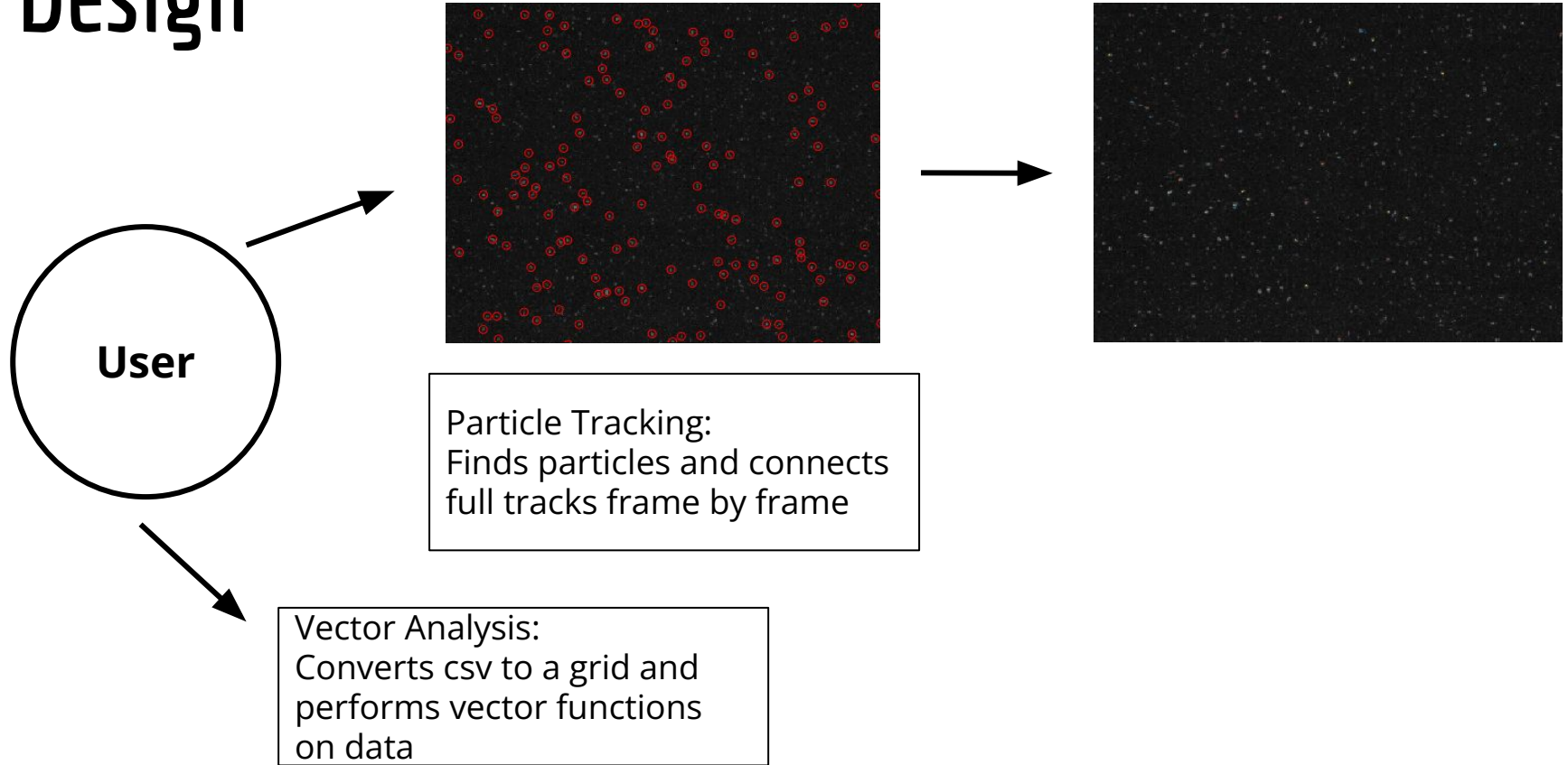
Vector Analysis:

- Use previous tracking data to find trends
- Visualize and interpret data

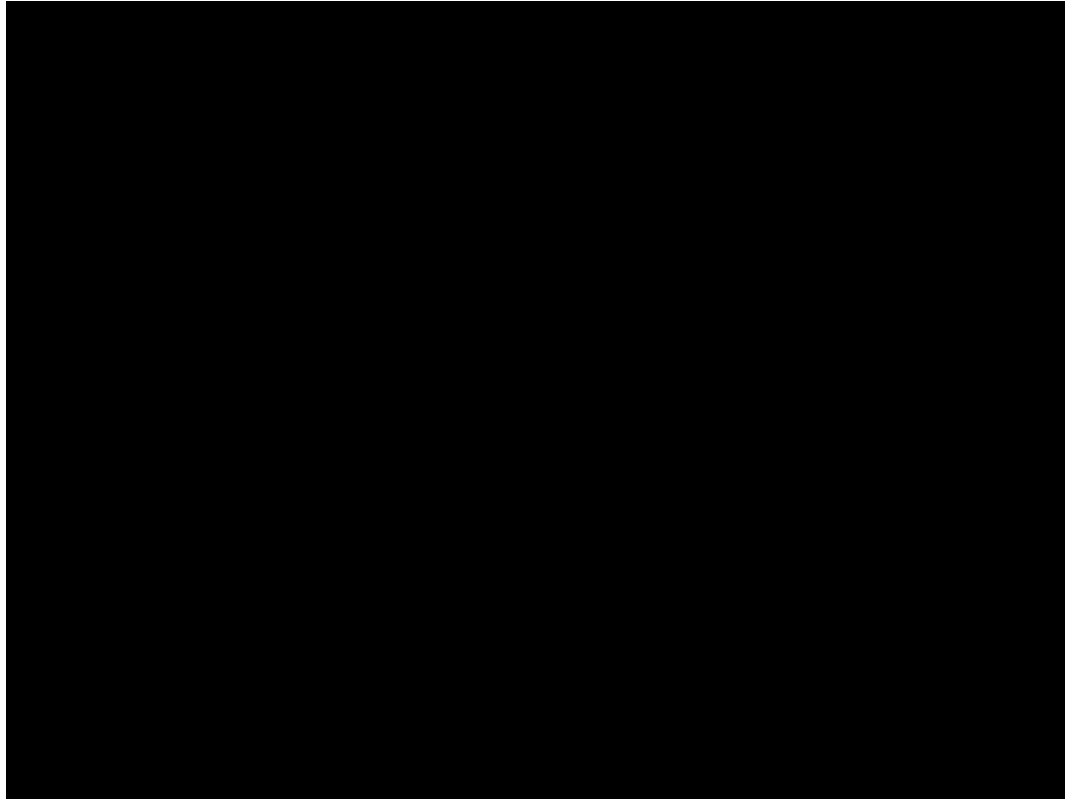
Data Export:

- Create plots of tracks

Design



Demo



Future Work

- This is version 1.0
 - Functional GUI with vector analysis code
 - Translated particle tracking code
- Work on correcting and implementation of particle tracking
- Continue improving GUI design and functionality
- Add more functions to vector analysis
- Test on more data types

Lessons Learned

- Translation from MATLAB to Python is not easy
- There are many packages and softwares and each has a pro and con
- Streamlit is good for prototyping!
- Testing your code is incredibly important
- Never forget add, commit, push (occasionally pull)

Some fun ones:

- The buses are not always on time
- The power of friendship is important

