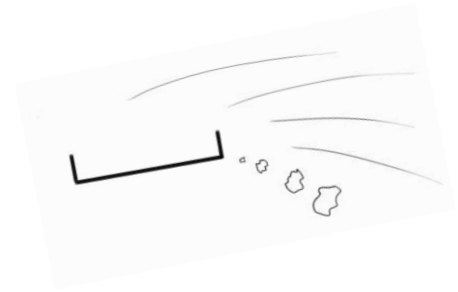


**HSR CHALLENGE 2015**  
**Fast & Furious**  
**Presentation 11.01.16**

# Agenda

- Team
- Our solution
  - How it works
  - Design
- Project organization
- Recap

# Whitespace Team:



- Stefan Kapferer



- Roberto Cuervo

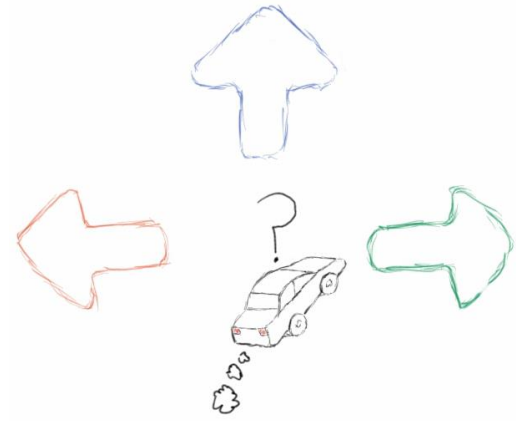


# Our solution

- First approaches
  - Interpolate data for track recognition
  - Physic Track Model Construction
- Too complex
  - Insufficient know-how
  - No time
- Therefore
  - Simple and straight forward solution attempt

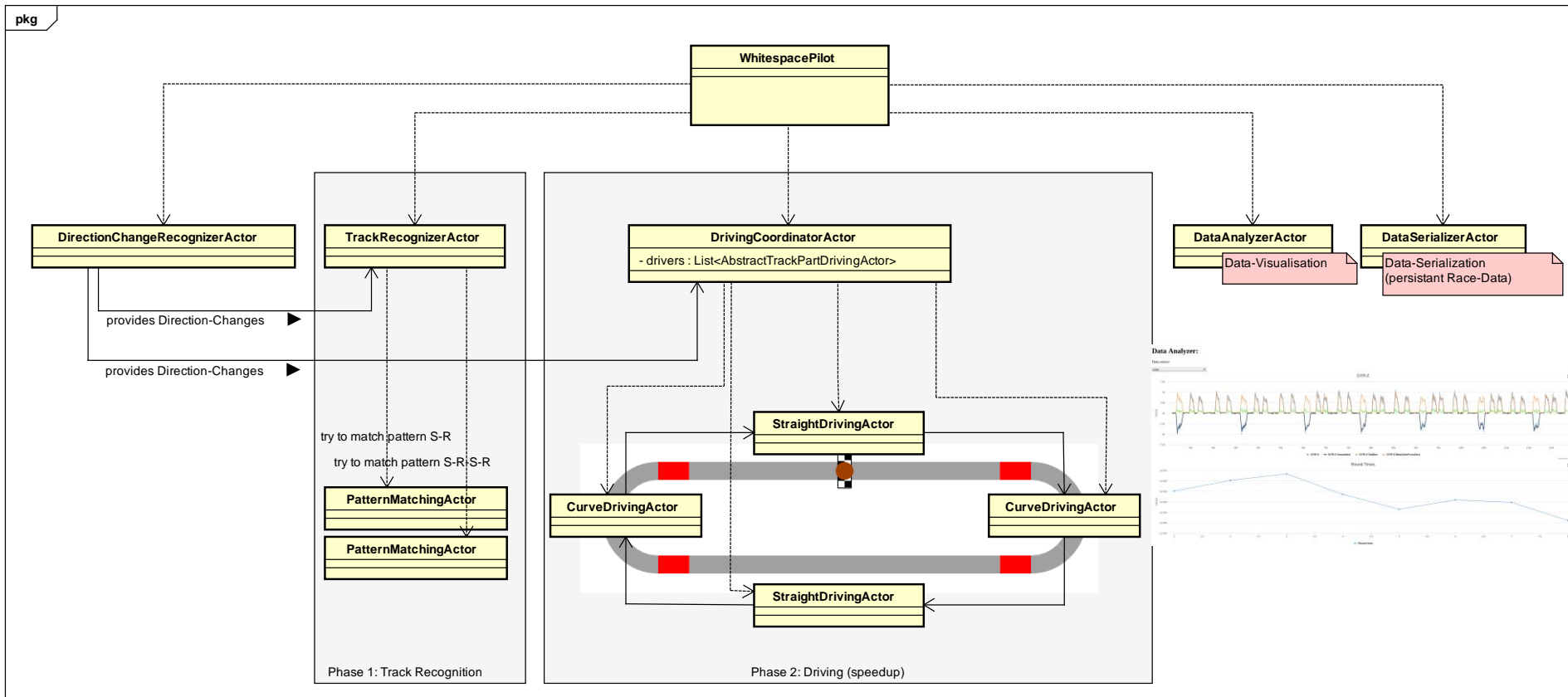
# Our solution: phases

- Track recognition
  - LEFT / RIGHT / STRAIGHT
  - Pattern Matching
- Driving
  - Speedup in STRAIGHT's
  - Then CURVE's



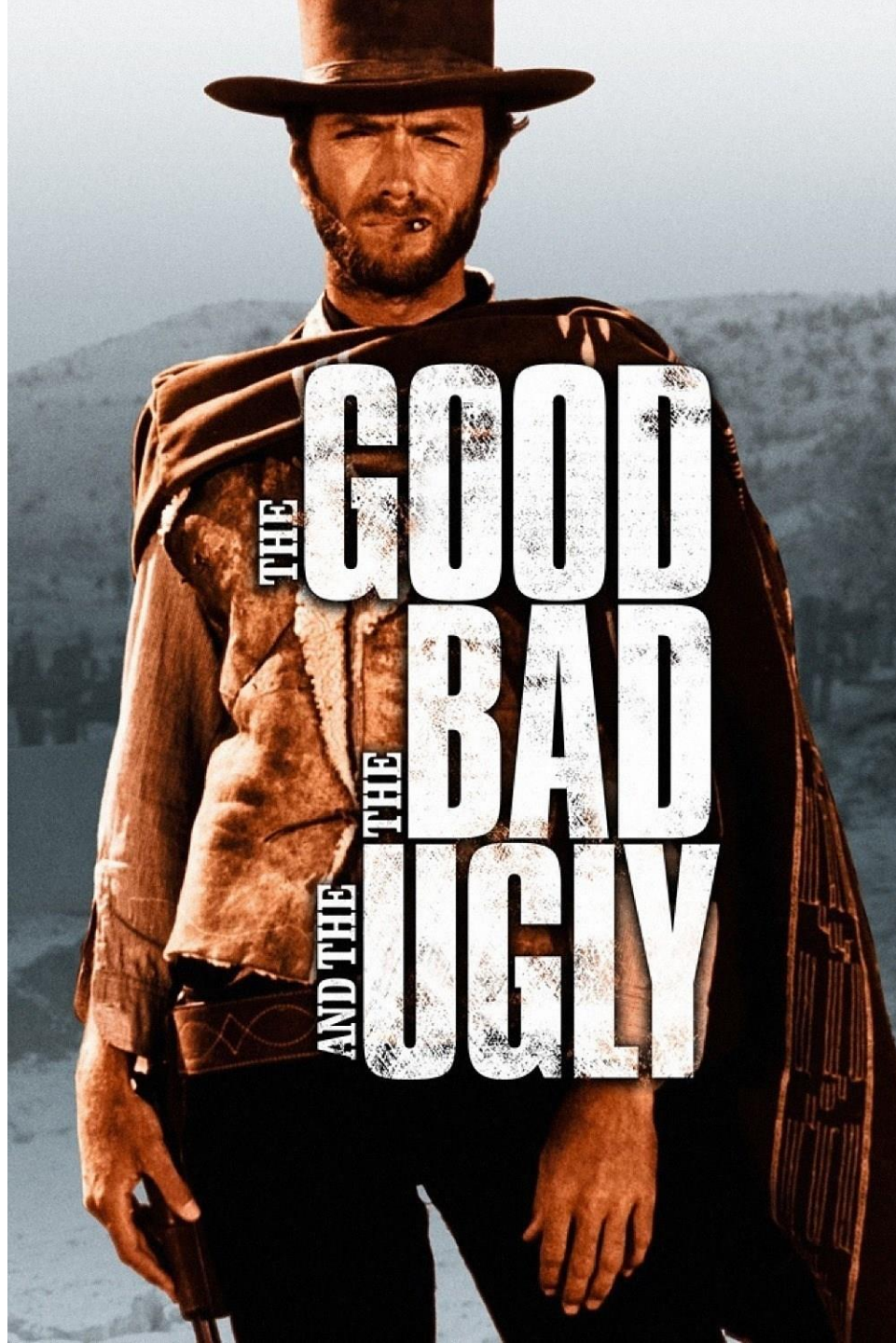
# Our solution: design

- Sample object model

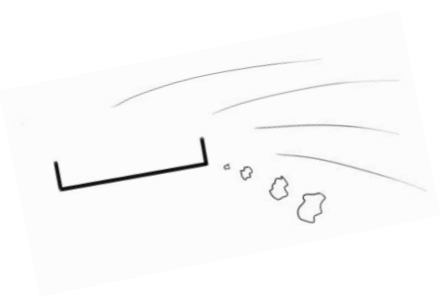


# Project Organisation

- Both part time students
- Collaboration only possible on sundays and mondays
- Pair Programming
- Total invested time: 270 hours
- Total commits: 102



THE GOOD  
AND THE BAD  
AND THE UGLY





# THE GOOD

- We've learned a lot about:
  - real time application design
  - real time application problematic, like
    - Latency
    - Testing
- Event Driven Programming (akka)
- what we don't know and what we should learn, like
  - More Math (Statistic...)
  - More applied Physics



# THE BAD

- Our solution is not good enough
- Our design is hard to test
- Too few real test opportunities (1)
- Insufficient know-how in several disciplines



# AND THE UGLY

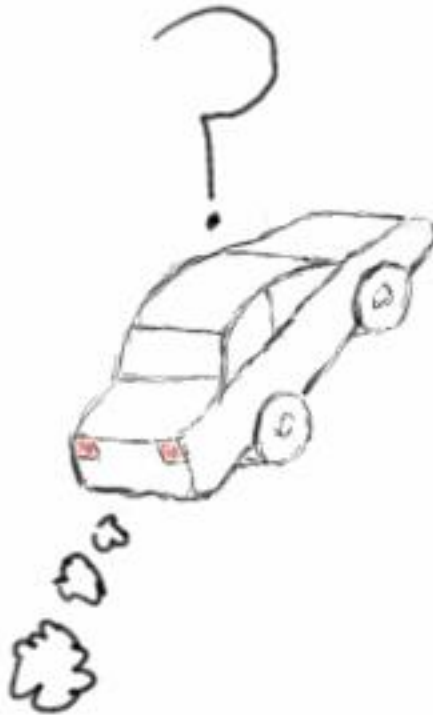
- Our simple approach did not lead to a convincing algorithm
- Missing required skills caused “try & error” procedure
  - No time to acquire skills
- We didn’t learn how to do it “right”



# Conclusion

- The project was very fascinating
- It has created more questions than answers, and that's "challenging"
- It served as motivator for further learning

# Questions?



Thanks for your attention!