### **Evolutionary car simulation**



# Jayoung Byeun / Tilman Kreis [Team]

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- Major: Medieninformatik
- Semester : 6th

#### [Motivation / Goal]

- Understand Neural Network and Genetic algorithm with Hands-on task.
- Build Neural Network.
- Build Genetic Algorithm including cross-over, selection and mutation function.
- Implement NEAT(NeuroEvolution of Augmenting Topologies) Algorithm with disconnecting/connecting nodes.

#### [Tech side]

- Programming language: Python
- IDE: PvCharm
- Collaboration tool: GitLab
- Product: Recording simulation in mp4



## **Training**

Image 2: 10th Generation

Selection based on performance

Image 1: 2nd Generation



Evolution -> New Generation of Networks





