sdmay18-04: Physical Character Animation using Machine Learning

Spring Report 5
March 10 - March 23

Team Members

Rob Quinn — *Project lead, Sim lead programmer, client communications*
Joe Sogard — *Web lead, Backend programmer*
Joe Kuczek — *Full stack web, SCRUM master*
Luke Oetken — *Simulation programmer, Machine Learning, Status reporter*
Andrew McKeighan — *Simulation programmer*
Kenneth Black — *Simulation programmer, Machine Learning*

Summary of Progress this Report

This week the simulation programmers worked on testing and tweaking the new genetic algorithm parameters and fitness functions to try to improve the realism of the animal movements as they learn. They also worked on refactoring the animal skeleton generation and model for armature. The web programmers worked on developing more testing for the database and REST, as well as experimented with D3.js as a framework for data visualization and graphing.

Pending Issues

There are no pending issues for this report period.

Plans for Upcoming Reporting Period

We plan to continue working on directly sending data from the simulation to the web database. We also plan to begin research and work on converting the animal movements to animations and building a simple game in Unity to use those animations in.

Individual Contributions

Team Member	Contribution	Bi-Weekly Hours	Total Hours
Rob Quinn	refactored skeleton generation and model for	6	64

	armature		
Joe Sogard	Developed more testing for our most complex database table and researched proper methods of REST testing	4	62
Joe Kuczek	Experimented with D3.js as a framework for data visualization and graphing	4	53
Luke Oetken	Worked on testing and tweaking fitness functions, GA parameters.	4	66
Andrew McKeighan	Collab with Luke tweaking GA/Brain	4	50
Kenneth Black	Added muscle values and merge with rest of team.	5	52