sdmay18-04: Animal Locomotion and Behavior Simulated by Genetic Algorithms
Spring Report 2
January 27 - February 9

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, our team and client decided a modification to our project proposal and plan was necessary in order to more clearly define a purpose for the project. Last semester, we struggled to describe our problem statement and end goals, so this revised plan should help clarify our purpose and focus our work. We decided that the project will now focus on character animation in video games, so natural movement and varied animal models are now our highest priorities.

With this project modification we also had to redefine team member roles and responsibilities. We discussed what new features we would like to prioritize for the simulation, and we all now have a better understanding of what we should be working on this semester. This modification will not affect the web portion of our project, so development on the web side was able to continue as normal.

Pending Issues

Our team came up with several development directions and features for the revised project proposal, and we have not yet fully decided on which of these we will pursue.

Plans for Upcoming Reporting Period

With our new responsibilities assigned, we can begin work on the features we would like to add to our simulation. These include genetic crossover and mutations. We will try to finalize the project modifications and integrate them into our documentation. We will also continue to work on the simulation fitness functions and animal modelling, as well as web development.

Individual Contributions

Team Member	Contribution	Bi-Weekly Hours	Total Hours

Rob Quinn	working on character models, defining animation goals	8	45
Joe Sogard	Created additional mock data, planned out formatting of requests with front-end, developed partial API for Generation	8	42
Joe Kuczek	Modified/tested front-end graphs with synthetic data to better represent our results	4	35
Luke Oetken	Researched genetic crossover techniques, refining simulation plans.	5	50
Andrew McKeighan	Figuring out modeling basics and reworking scoring for fitness functions.	5	33
Kenneth Black	Worked on genetic mutations.	5	34