

sdmay18-04: Animal Locomotion and Behavior Simulated by Genetic Algorithms

Week 4 Report

September 26 - October 2

Team MembersRob Quinn — *Project lead, Sim lead programmer, client communications*Luke Oetken — *Simulation programmer, Status reporter*Andrew McKeighan — *Simulation programmer*Joe Kuczek — *Full stack web, SCRUM master*Joe Sogard — *Web lead, Backend programmer*Kenneth Black — *Simulation programmer, Machine Learning***Summary of Progress this Report**

This week, with our team members now all having access to the simulation project, we were able to run tests and experiment with the prototype, and work on improvements. The simulation engineers worked on becoming familiar with how the animal models and simulation physics function, experimented with modifying the genetic algorithm, and began working on new muscle physics. The web engineers also worked on becoming familiar with the simulation prototype, and continued research for website structure.

Pending Issues

No pending issues this week.

Plans for Upcoming Reporting Period

For the next week we plan to look into integrating a new machine learning framework into the project, continue development of muscle physics, and continue testing to find bugs and make improvements to simulation. We will also continue web research and designing the project website.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Rob Quinn	progress on new muscle physics, testing physics in simulation	3	21
Luke Oetken	Running simulation tests, learning about how the models function, experimenting with genetic algorithm	4	16
Andrew McKeighan	Learning how to use unity with more tutorials.	4	13
Joe Kuczek	making changes to website, preparing Gitlab and reviewing code	3	13
Joe Sogard	researched using heroku, continuous integration possibilities	2	12

Kenneth Black	pulling in git repo and experimenting with inchworm physics and mechanics.	3	12