

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

Week 3 Report

September 18 - September 25

**Team Members**Rob 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, our team met to form our project plan, as well as discuss research findings. In creating the project plan, we clarified each member's responsibilities, and deadlines we want to hit. Rob demonstrated to the team the first stage of the simulation prototype he created. The simulation engineers discussed what areas of the prototype we want to try and develop first. We also updated the project website with our weekly status reports and the first draft of the project plan.

**Pending Issues**

We have no pending issues this week.

**Plans for Upcoming Reporting Period**

The simulation engineers will work on expanding the machine learning algorithm of the prototype, and begin creating additional animal models. The web engineers will continue developing the architecture for the website, and begin creating a preliminary version of the site.

**Individual Contributions**

Team Member	Contribution	Weekly Hours	Total Hours
Rob Quinn	made base functionality for locomotion and basic GA, ready for team who have been learning unity, met with team for teaching and project plan.	8	18
Luke Oetken	Researched new Unity built-in machine learning framework. Worked on project plan. Began experimenting with simulation prototype. Reported status	4	12
Andrew McKeighan	Familiarizing myself with Unity. Worked on project plan.	3	9
Joe Kuczek	Installed Unity and started checking out	4	10

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	example projects. Worked on project plan. Updated website with status reports.		
Joe Sogard	Started researching web stacks and designing architecture. Researched genetic learning algorithms.	4	10
Kenneth Black	Started looking at deep learning models that can be implemented with our projects. Also looked at new ways to expand on our already done algorithms.	3	9