Simulation Developer for Physics-based Space Game

December 03, 2014 -- Anonymous (not verified)

Department: [Department]
City: Seattle
State/Province: WA
Category: Surface Composition
Atmospheres
Modelling
Exoplanets
Education/Public Outreach
Country: USA
Contact Person: Dan Dixon
Institution: [Institution]
Application Due Date: Thursday, January 15, 2015

Giant Army is looking for a planetary scientist or astronomer with a strong scientific computing background to join our team. You should be interested in helping us extend, improve, and develop the physical simulations at the heart of Universe Sandbox² [2]. This is a contract position, but has the potential to become more permanent.

You will work closely with Giant Army’s current astronomer, as well as the creator of Universe Sandbox, in addition to our climate scientist, core game architect, numerical physics developer, graphics programmer, and technical artist.

Join us... we’re making something incredible that’s never been done before.

Your Role

• Help design, improve, and code the real-time simulation, which merges the gravity simulator with other simulated systems and incorporates as much realistic science as possible
• Help discover simulation edge cases and develop solutions to solve them
• Advise the team on how to best make the simulation, data, and visuals more realistic
• Some potential areas for development include connecting composition and physical properties, gas giant atmospheres, habitability, major impact aftermath, and your favorite project

Ideal Candidate

• Loves physics simulations and fantastical what-if scenarios: https://what-if.xkcd.com/ [3]
• Is a self-driven and talented programmer with experience developing numerical models in a compiled language using modern developer best-practices
• Writes clean code that is comprehensible to teammates
• Is excited about developing a tool that allows users to experiment with simulations, pushing the boundaries of what has been done in real-time for public consumption
• Can envision what makes the best interactive experience with physical concepts, and how best to crunch the numbers to make it happen

Mandatory Qualifications

• Planetary science || (astronomy && (physics || chemistry)) background
• Simulation design and coding experience
• Strong enthusiasm for using models to explore both realistic and fantastical what-if scenarios
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Published on Division for Planetary Sciences (https://www.dps.aas.org)

- Strong interest in helping change the way the world perceives our universe and fragile planet
- Good communication skills and proficiency in English, both writing and speaking

Preferred Qualifications

- (Strong C# && Unity Engine experience) || (Experience with an entity component model && object-oriented programing)
- M.S. or PhD in relevant field
- Ability to meet in person at least once a month in Seattle, WA, United States, but will consider outstanding candidates from anywhere in the world

Company Overview

Giant Army [4] is the company behind Universe Sandbox, a space simulator that’s sold hundreds of thousands of copies on Steam. Our headquarters are in Seattle, Washington, USA, with team members in Montana, Florida, Germany, and Denmark.

Team members enjoy a flexible, collaborative environment. We strive for work-life balance, and we pursue the features that get us excited about science. We do the work so that we can share that with others. We’re also committed to creating an accessible experience that can’t be found elsewhere.

Science is for everyone, and we welcome all qualified applicants.

Product Overview

Universe Sandbox ² [2] is our core product that lets the user explore and learn about our amazing universe and fragile planet while creating and destroying on a scale they’ve never before imagined. It’s more than a game; it’s a way of experiencing and learning about reality in a way that’s never been done before. Early alpha access now available for Windows, Mac, and Linux.

How to Apply

Email us: jobs at universesandbox.com In the email please include:

- Relevant email subject
- Link to or copy of your resume or CV
- Answer to these two questions:
  - What is the most appealing part of this opportunity?
  - What feature would you be most interested in adding or helping make better?
- Where you originally heard about this job posting

Position Type: Other
Contact Email: dan@universesandbox.com [5]
Source URL: https://www.dps.aas.org/content/simulation-developer-physics-based-space-game

Links:
[5] mailto:dan@universesandbox.com