RE: Revising a budget for R25 proposal (No. 711)

Jeff Gallant <Jeff.Gallant@usg.edu> Fri 2024-05-17 10:32 AM To:Inseok Song <song@uga.edu> Hi Dr. Song,

This change in the budget is fine with ALG. Be sure to check with your Grants/Business Office contact at UGA to make sure that it's institutionally approved and possible.

Thanks so much, Jeff

Jeff Gallant

Program Director, Affordable Learning Georgia Library Services / GALILEO 2500 Daniells Bridge Road Bldg. 300 Athens, GA 30606 706-583-2144 affordablelearninggeorgia.org

From: Inseok Song <song@uga.edu> Sent: Thursday, May 16, 2024 11:38 AM To: Jeff Gallant < Jeff. Gallant@usg.edu>

Subject: Re: Revising a budget for R25 proposal (No. 711)

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Dear Jeff,

Here I send you the updated MS Word proposal file with the revised budget (in Section 6). FYI, I also copied the justification for the revised budget below my signature.

Thanks for your time and effort in promoting "Affordable Learning" in Georgia. 😉



Revised Budget (May 16, 2024)

We are requesting approval for a revision in the budget, which involves reallocating \$3,500 from the 'Undergraduate Student Support' to the purchase of a '3-D Modeling Workstation'. The detailed justification for this revision is provided below.

Operating 3-D modeling software (e.g., Blender, Unity, Unreal Engine, Godot, etc.) necessitates a powerful computer equipped with a robust GPU. However, most of our student members lack a computer powerful enough to efficiently perform 3-D model programming tasks on their laptops or desktops. For instance, rendering a simple 3-D model of three orbiting bodies, such as the Sun-Earth-Moon system, can take several hours on a computer that is over five years old. Another example is that the latest Unreal Engine 5.x game engine refuses to run on a computer with a GPU that is approximately five years old (i.e., Nvidia GeForce 760). The development of 3-D models requires frequent debugging and, consequently, frequent rerenderings. To enhance the efficiency of 3-D model programming, we aim to purchase a modern, graphics-oriented computer dedicated to 3-D model development.

As most of our student members work remotely, especially during the summer, we plan to set up the dedicated workstation using a special remote access protocol. Regular remote desktop programs, such as VNC or Microsoft's Remote Desktop, are not suitable for our needs due to the intolerable latency for efficient 3-D programming. We have tested a technology called Parsec, which allows students to remotely connect and smoothly execute 3-D programming tasks on the powerful workstation. About a year ago, we secured a less powerful workstation through a different grant. With an additional, more powerful 3-D workstation, we can establish an efficient environment for 3-D programming for approximately 10 active student members. This will significantly expedite the 3-D model development phase of the project.

An additional factor that enables us to revise the budget is that two active student members of our team have been awarded UGA's CURO Summer Fellowship (\$3,000 each), providing us with more flexibility to adjust the budget components.

A workstation with the desired specifications (Intel 14th Gen i9 CPU, NVIDIA GeForce RTX 4080 or later, 64 GB RAM, 2TB M.2 storage) costs around \$3,500. If there is any remaining balance from this reallocation, we will purchase additional SSD storage.

From: Jeff Gallant < <u>Jeff.Gallant@usg.edu</u>> Sent: Wednesday, May 15, 2024 3:06 PM

To: Inseok Song < song@uga.edu >

Subject: RE: Revising a budget for R25 proposal (No. 711)

This is a substantial enough change that yes, a revision of the budget would be very helpful. Would you mind sending a version of the Word proposal file with a revised budget section?

Best,

Jeff

Jeff Gallant

Program Director, Affordable Learning Georgia

Library Services / GALILEO

2500 Daniells Bridge Road Bldg. 300

Athens, GA 30606

706-583-2144

affordablelearninggeorgia.org

From: Inseok Song <song@uga.edu>
Sent: Wednesday, May 15, 2024 12:10 PM
To: Jeff Gallant <Jeff.Gallant@usg.edu>

Subject: Revising a budget for R25 proposal (No. 711)

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Dear Jeff,

I have a quick question. Can I make a change in the budget for the approved Round 25 grant (No. 711)? I want to switch \$3,500 from the undergrad support budget to a purchase of one dedicated 3-D modeling workstation.

During this summer, many students including a handful of GSMST high school interns will work on the 3-D model development for the project, and they do not have powerful computers to use. A dedicated 3-D modeling workstation that is configured such that students can access the workstation remotely using their less powerful laptop can be a solution. For that purpose, I inquire if such a revision can be approved.

Best,

Inseok

Inseok Song, M.Ed., Ph.D.

Department of Physics & Astronomy

Associate Professor of Astronomy / Interim Associate Head of the Department

