

## Request for Technology Fee Funds

**NOTE: A separate request should be made for each initiative.**

**I. Department Number/Department Name:** 360 College of Computing

**Title of Request (please be brief):** Cloud HPC

**Amount of Request (formula from detailed budget below):** \$17,360

**Are there any installation/renovation costs associated with this request?**  Yes  No

**If "Yes" then indicate the source of approved funding:** \_\_\_\_\_  
(Note: Tech Fees are not allowed for installation/renovation)

**Executive Summary of Request (100 words or less):**  
 This is a request for cloud HPC cycles for non-OMSCS classes when either the on-premise HPC resources are inappropriate, or closer resource parity is required for projects in online and non-online versions of the same course.

**Specific class and/or lab initiative(s) if applicable:** \_\_\_\_\_

**Contact person for this request (incl. phone #):** Chad Huneycutt (678) 992-9109

**Indicate priority per department if applicable:** Number \_\_\_\_\_ of \_\_\_\_\_

**Indicate priority per college or unit:** Number 4 of 6

**II. Impact on Students - Provide course title, course number, and anticipated enrollments:**

**Titles/Numbers of Course(s)** CS4210, CS6210, CS4290, CS6290

**Anticipated Enrollments**

Graduate:	198
Undergraduate:	75
Total:	273

**NOTE:** Other impacts on students should be described in narrative.

**III. Narrative - Provide narrative justification for your intended use of the technology fee funds. Include narrative on how the education or research of the students will be enhanced. Also include how the request aligns with the Strategic Plan of Georgia Tech. Continue in the block below if necessary.**

The College of Computing offers a popular instructional HPC resource in the Technology Fee-funded JINX cluster. We have sized the cluster to handle the workload for most of the projects in the classes using it, but some classes have a short-term need for more compute power than the cluster can provide. For instance one of the projects in CS6210 depends on timed runs of parallel applications on many nodes. Timing runs requires exclusive access to the compute nodes, so this project requires that every student (or student team) tie up most if not all of the cluster nodes during execution. The cluster has a batch queueing system and allows time sharing, which would allow this type of usage, but during peak demand (ie, the night before the due date), the time for jobs to complete would be unreasonable. Furthermore, some instructors teaching courses that are also offered as part of the OMSCS curriculum desire a homogeneous environment for both the OMSCS version and non-OMSCS version. This is particularly important for projects that are sensitive to the specific versions of software available on the cluster. We are requesting an allotment of Technology Fee funds to purchase cycles of a cloud HPC service for these cases that are not appropriate for our in-house resource.

**IV. Detailed Budget - Requested Items by Category** List separately any equipment, software, and other allowable expenses (see Tech Fee Guidelines). There is a formula in the "total column" that multiplies the number of items times the unit price. You may enter a figure into the total column if the unit pricing is not applicable. If you need additional rows, contact the Budget Office to receive a modified form.

**Supporting documentation is required** - Include price justification in some form, such as quotations, published price lists, etc. as a separate PDF attachment. All supporting information should be in a single PDF.

Proposed Number of Items	Estimated Price per Unit	Total (\$)
50000 core hours of POD (\$0.07/core hour)	1	\$3,500
5000 core hours of POD GPU (\$2.70/core hour)	1	\$13,500
400 GB Ceph Storage (\$0.10/GB month)	1	\$360
		\$0
		\$0
<b>Total (linked to the total amount of request line above)</b>		<b>\$17,360</b>

Please return form via e-mail in Excel format to: [tina.clonts@business.gatech.edu](mailto:tina.clonts@business.gatech.edu). Supporting information only in a PDF file.

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III. Continuation of narrative justification, if necessary

[Empty box for narrative justification]