

PROPOSAL FOR GRID-COMPUTING SUPPORT FOR FINANCIAL ENGINEERING

I am Vysakh Nachiketetus, doing my Masters In Finance. From my professor Krishnan I heard about the GSB project. I am extremely enthusiastic on joining the GCB project in Financial Engineering. I will be honored to be part of the globally distributed team of young researchers from the Chinese Academy of Sciences, Beijing; the City University of Hong Kong, Hong Kong; and Florida International University. The project will give me an opportunity to participate in a globally distributed class on the Network and Grid technology offered by the FIU Computer-Science department and working in a globally distributed team of computer-scientists and domain experts.

I know the GCB - Global Cyber Bridges is a US National Science Foundation supported project on training young scientists in the application of grid computing to scientific problems. And the team will be assessing the potential of grid-computing for supporting Financial Engineering applications. This project gives a chance to explore the possibility of graduate students and faculty members from the College of Business in grid-computing.

As the recent financial crises clearly shows, a careful assessment of the risks and profitability of financial products, such as financial derivatives is essential for the financial health of both the financial institutions and the economy. The testing of this complex Financial products were undergone using large, expensive super-computers crunching large amounts of financial data. Smaller financial institutions, that cannot afford the computing power, either outsource the analysis to specialist companies or often do without a careful analysis. Grid-computing can, in theory, provide a lower-cost and reliable alternative. However this requires that the financial models be adapted to access data and run in a grid environment.

I know this project has been funded by National Science Foundation and also GCB initiative will train young domain scientists and computer-scientists from three locations (FIU, Miami; Chinese Academy of Scientists, Beijing; and University of Brazil, Sao Paolo) to work together in developing grid-based solutions to domain based problems in science domains such as Astronomy, High Energy Physics, Atmospheric and Environmental Studies, and Genomics. I know the proposed Financial Engineering project will be one of the earlier projects to explore the potential of applying grid-technologies in the business domain.

My Prof Krishnan has referred me for this project. With his support and guidance I am ready to work with the GCB teams on the project. Since I have been working as a software engineer for 3 years. So I have a good foundation on software developing processes and related technologies. As a Finance graduate student I have secured good grade and I have got a good foundation in Finance related topics, which will definitely help me doing this project.

Sincerely,
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