The Office of Research at Old Dominion University is seeking a post-doctoral researcher with advanced computer science expertise. The general area of research is Distributed and Grid Computing with a primary focus on programming and execution environments to support the development of applications. These environments demand increasing levels of collaboration and cooperation among the full range of disciplines that utilize advanced computational methods. The position being sought through the Office of Research will work to insure multi-disciplinary collaboration, supporting the development of frameworks, tools and other support needed to meet these programming challenges. For example, one current project is researching state-of-the-art component programming and Grid computing techniques, and then using these techniques to development a framework for the creation of large, complex scientific applications. In addition, the researcher will be encouraged to develop new ideas and projects related to distributed and Grid computing either independently or with members of the ODU faculty and staff.

Distributed and Grid computing environments have begun to enable significant increases in execution performance at reasonable cost levels. However, development of the applications that can exploit these environments has proven to be difficult, demanding increasing levels of collaboration and resource sharing. The successful candidate will assist in creating synergistic collaborations with University researchers in applied mathematics, chemistry, engineering and physics through the utilization of high performance computing techniques. The successful candidate will also be given the opportunity to work with a diverse array of research partners, including DOD, DOE and NASA, all with major installations located nearby.

The successful candidate will have experience with several of the following areas:

- Design of frameworks and support tools for HPC applications
- Distributed and Grid Computing Software
- Advanced Programming Concepts (Software Components, Object-oriented programming, Aspect-oriented programming)
- Compiler design
- Cluster Computers and High-performance Architectures