

**PHD STUDENTSHIPS IN
SCIENTIFIC VISUALIZATION OR
INFORMATION VISUALIZATION
AND DATA ANALYSIS
(TO BEGIN IN THE SPRING OF 2020)**

Dept. of Computational Modeling & Simulation Engineering
Old Dominion University
Norfolk, VA 23529, U.S.A.



One (1) PhD studentship in either Scientific Visualization or Information Visualization and Data Analysis will be available in the spring of 2020 at the department of Computational Modeling and Simulation Engineering (CMSE: <https://www.odu.edu/cmse>), Batten College of Engineering and Technology (<https://www.odu.edu/eng>), Old Dominion University (ODU: www.odu.edu), with the tuition covered and a competitive amount of stipend offered, both for spring, summer, and fall.

Candidates already with MS/ME degrees (or those currently in MS/ME programs) in computer science, information science or engineering, electrical engineering, applied mathematics, or other closely related disciplines are welcome. An ideal candidate should

- be highly self-motivated
- have a deep passion for research
- address tasks in a discreet, progressive, and accordingly thorough manner
- possess great communication skills in written and oral English
- demonstrate a strong research ability and solid development skills (and is expected to perform intensive research and sustainable development) in **either** of the two areas below

- **SCIENTIFIC Visualization**, involving vector / flow field visualization, parallel visualization, uncertainty visualization, and virtual reality

Requirements: C/C++ and OpenGL (with CUDA and MPI considered a plus)

- **INFORMATION Visualization**, involving hierarchies, graphs, networks, and pipelines

Requirements: D3, JavaScript, and Python

ODU is a national research university, as classified by the Carnegie Foundation. With an enrollment of 25,000 students, ODU is located at Norfolk, VA, just along the east coast of the United States. The surrounding metropolitan area called “Hampton roads”, covering other neighbor cities (Newport News, Hampton, Virginia Beach, Chesapeake, Portsmouth, et al), has a population of over 1.7 million. Norfolk is considered the historic, financial, and cultural center of this region, about 20 miles from NASA Langley Research Center (Hampton), about 25 miles from Jefferson National Lab (Newport News), and about 3.5 hours of drive from Washington DC

The CMSE department of ODU is the first of the nation to offer a doctoral program in modeling and simulation engineering, currently with a significant initiative in data visualization

and analysis in an effort to address the increasing needs of domain experts as they resort to the modeling-simulation-visualization-analysis cycle towards scientific discovery. CMSE students have access to state-of-the-art high-performance computing facilities in addition to research labs, a virtual reality theater, and a four-wall CAVE (Cave Automatic Virtual Environment). The graduate program is unique for the multidisciplinary characteristics, involving 35 faculty members from six academic colleges. In addition, it is supported by research scientists and computing resources of the nearby Virginia Modeling, Analysis, and Simulation Center (VMASC) located at Suffolk, VA.

Please **E-MAIL** your questions, sufficiently detailed CV, and transcripts to z1Liu@odu.edu.

Thanks.

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