



Rose-Hulman Institute of Technology

Motivating Geometry through Computation and Visualization

NSF CCLI-EMD grant

The above grant is to develop interactive material for MA 323 Geometric Modelling. The material to be developed includes a web-based text with java applets to learn about Bezier curves, B-Splines, Bezier patches, Coons patches, Catmull-Rom splines, and more. These methods are used extensively in computer graphics, geometric modeling (CAD/CAM), and imaging science. The grant will fund 3 students for six weeks during the summer to aid in the development of the course material.

Where: Rose-Hulman Institute of Technology, Terre Haute, Indiana.

Dates: Sunday, June 6 - Saturday, July 17, 2004

Stipend and support: ~\$2500 room and board provided.

Application Due Date: March 26th, 2004

Qualifications for Applicants:

Applicants should

- be current Rose-Hulman students,
- be committed to devote their full time to the program and not engage in any other course work or employment during the program,
- have a good background in Calculus and basic high school geometry
- have experience in using a high level mathematical package or programming language such as Maple, Mathematica, Matlab, C, Fortran, Pascal or Java.

In addition to meeting the above requirements, applicants will be judged on the basis of demonstrated competence in mathematics, their programming experience, motivation, work habits as well as one letter of reference.

A complete application will consists of:

- a completed application form
- a unofficial transcript including 2003-2004 Winter Quarter grades
- one recommendation letter, which should address most if not all of the following
 - (a) mathematical ability, (b) programming experience, (c) work habits, and
 - (d) ability to work in a team.
- a brief letter indicating why you want to participate in this program and how this program fits in your career plans, additional information may be added at your discretion (attach additional sheets as necessary to application form)

Application Form for Student Assistants
CCLI-EMD Grant: Motivating Geometry through Computation and Visualization

Name: _____

Citizenship: _____ SSN _____ Birth Date _____

Local Address _____ Home Address _____

Phone Numbers _____

E-Mail Addresses _____

Name of Reference (preferably a Mathematics or Computer Science Professor)

Math Courses Taken (use numbers): _____

Computer Science Course Taken (use numbers): _____

Other Relevant Courses Taken (use titles not numbers): _____

Programming Languages/Experience: _____

Honors, Awards, Prizes, etc: _____

Signature: _____ Date: _____