

CSUMS: Computation for Undergraduates in Statistics Program (NCSU CUSP)

About the Program: The Department of Statistics at North Carolina State University established a Computational Science Training for Undergraduates in the Mathematical Sciences (CSUMS) program to provide a rich applied computational statistics research experience to a diverse population of undergraduate students that will encourage them to continue their academic programs to the graduate level and will help them in making more informed decisions about their academic or nonacademic careers. This CSUMS program, which is funded by the National Science Foundation, targets rising senior and exceptional rising junior mathematics majors who have demonstrated academic excellence. NCSU-CUSP prepares students to be involved in a significant research experience, and to be fluent in the languages of computing, mathematics, and statistics.

Program Activities: The statistics CSUMS program is a ten-week program that starts from the beginning of June through the beginning of August each year. During this period, approximately three teams of two to three students will work collaboratively with program faculty. Topics to be explored include novel models for environmental epidemiological data, drug discovery using high-throughput screening (HTS) data, new computational statistical methods in identifying genes responsible for human diseases, financial risk evaluation using data mining software and pattern recognition methods (CART, SVM etc.). The program couples extensive coursework in computing for contemporary statistical analysis with a practicum and research lab focusing on an area of application mentioned above.

For more information:

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