

## **Internships in Data Visualization and Analysis Seton Hall University**

### **Overview: Certificates in Data Visualization and Analysis**

In today's society, government, industry and many other institutions collect and analyze large amounts of data to further their goals, such as:

- Governments want to preserve homeland security and, therefore, gather and study data on the activities of terrorist groups.
- Health and public administrators want to deliver health care efficiently and effectively to patients. They analyze data to understand patients' needs and to control the cost of health care.
- Marketing analysts study online social networks to the direction of new marketing campaigns.
- Financial analysts want to understand the relationships among different stock prices and economic indicators.

To address these growing needs, the College of Arts and Sciences at Seton Hall University offers undergraduate and graduate certificates in Data Visualization and Analysis online and on-campus. This relatively new discipline trains students to communicate information clearly and effectively through graphic depictions that stimulate and encourage viewer engagement. Students learn how to analyze and portray complex data in an attractive and vivid design format.

### **Services to be Provided by Data Visualization Interns**

Seton Hall students enrolled in the Certificate in Data Visualization and Analysis program are available to work as interns for public and private agencies. They can assist organizations in a variety of ways:

- **Prepare data:** Set up M.S. Excel and M.S. Access databases, prepare and input data.
- **Analyze data:** Use statistics, data mining and data visualization to evaluate the data and make inferences.
- **Design visualizations:** Design compelling data visualizations in M.S. Excel and Tableau for presentation and study.

### **Background of Interns**

Interns may either graduate students or undergraduate students (usually in their 3<sup>rd</sup> (junior) or 4<sup>th</sup> (senior) years). The students' educational backgrounds and interests may be diverse with areas of study including business, social and natural sciences, mathematics, and psychology.

## **Terms of the Internship**

Interns are required to work a minimum of 150 hours. When school is in session, they usually work a minimum of 15 hours per week for at least 10 consecutive weeks. Other arrangements are possible depending on the schedule of the student. Students may also work full-time during breaks and the summer

## **How to Request an Intern**

Interested employers can list internship opportunities available in their agencies through the Department of Mathematics and Computer Science. Employers may contact the department's secretary, Melissa Kohlman at (973) 761-9466 or [melissa.kohlman@shu.edu](mailto:melissa.kohlman@shu.edu), who will accept submissions. Internships may be paid or unpaid. Salaries are negotiated between the applicant and the employer without involvement of the University.

## **Conducting Internships**

For the student, the goal of the internship is to connect her or his academic preparation with hands-on learning and work experience. At the beginning of the internship, the student develops a learning agreement with a faculty adviser. This learning agreement summarizes the skills to be practiced at the internship. The student will be expected to report about the experiences to the faculty adviser but the faculty adviser is not involved in supervising the student in the workplace. The employer is responsible for providing a qualified supervisor/mentor who will monitor and guide the student.

## **For more information on posting internships or requesting interns with skills beyond those listed, contact:**

Dr. Manfred Minimair, Associate Professor, Seton Hall University, Department of Mathematics and Computer Science. Email: [manfred.minimair@shu.edu](mailto:manfred.minimair@shu.edu). Tel: (973) 761-9466, Fax: (973) 761-9772