

**The University of Iowa College of Engineering
Student Development Center/Engineering Professional Development**

**BME Co-op/Internship Employers
Locations and Descriptions, 2002-06**

Abbott Laboratories Biological screening/global products research and development	Abbott Park, Illinois
Alliant Energy Update GIS map of Dubuque County and surrounding areas/update other diagrams	Cedar Rapids, Iowa
Allsteel Ergonomic testing and analysis, studying and analyzing competitors' products	Muscatine, Iowa
Analex Corporation Provide engineering consulting for a start-up medical device company	Littleton, Colorado
Biomec CardioVascular Quality Assurance Engineering Intern for medical device company	Bloomington, Minnesota
Brown Medical Assist BME Design Engineers and Contracts/Sales Mgr. in work on tennis elbow strap, illiotibial hand strap and thumb keeper splint; also, fasciitus splint and toe clamp.	Spirit Lake, Iowa
Caterpillar Assist ergonomic team members in current projects, develop new projects including the use of sensors and seat suspension	Peoria, Illinois
Catheter and Disposables Technology, Inc Supplier evaluation and assistance in quality issues, research and data collection in manufacturing build cycle times and trending, writing SOP and training for tensile tester, laser micrometer, and tipping machine	Plymouth, Minnesota
Cerner Assist with the design and development of web-based training courses for clinical end users of Cerner Millennium solutions. Meeting with course content experts and sponsors, using software development tools, executing all applicable tasks in the course development process, and other tasks to support WBT Development Team's efforts	Kansas City, Missouri
Civco Medical Instruments Use ProEngineer and AutoCAD to make/update drawings and specifications/assist in testing and quality inspection of devices, documentation of devices to ISO 9001 and 46001 procedures	Kalona, Iowa
Clemson University Medical/Biological engineering research	Clemson, South Carolina

Cleveland Clinic Cleveland, Ohio
Develop an organ culture system for human and porcine mitral valves

Cook, Inc. Bloomington, Indiana
Design and development of various styles of medical/surgical devices

DePuy Orthopaedics, Inc Warsaw, Indiana
Responsible for biomechanical testing and analyses/research support for all orthopaedic device product development teams/perform basic scientific studies

Engineering Systems Inc. Aurora, Illinois
Organizing and researching data and information on lower limb injury study supporting ongoing engineering projects

Environmental Research Center, Texas Tech University Chariton, Iowa
Field and lab study of the effectiveness of riparian buffers at reducing movement of atrazine and nitrates into surface waters

Ft. Dodge Animal Health Ft. Dodge, Iowa
Technical Services Intern for veterinary pharmaceutical company, validating equipment and processes, designing, executing, and filing reports about experiments which comprehensively prove that the process or device does what it is supposed to do, within pre-established tolerances

GE Corporate Research and Development Schenectady, New York
Participate in 3D Digital Mammography Project/Responsible for 3D image reconstruction and processing algorithm development

GE Global Research Center Niskaya, New York
CT reconstruction algorithm development

Globus Medical Phoenixville, Pennsylvania
Research Engineer, responsible for planning, coordination, successful execution and publication of various research projects for spine surgeons, residents, and product development

Hygia Health Services Birmingham, Alabama
Medical devices, research and design, materials and product testing

Illinois Institute of Technology Chicago, Illinois
Performing necessary background research and experiments, presenting results for Summer Diabetes Research Projects, specifically to develop a minimally invasive glucose meter, which has no negative side effects and provides an accurate measure of current blood glucose levels

Implex, Inc. Cedar Knolls, New Jersey
Mechanical testing of biomedical prototypes and products to determine mechanical performance and properties

Iowa Department Natural Resources P2 Program: Mercy Medical Ctr. Cedar Rapids, Iowa
Reduction/management of regulated medical waste, general facility recycling, pollution prevention projects

Iowa Spine Research Center/Palmer College of Chiropractic Iowa City/Davenport, Iowa
Calibration and testing of force transducers, LA 600 motion analysis system, and development of software for biomechanical data analysis and computer systems

Iowa State University Human Computer Interface Lab Ames, Iowa
Virtual Cell Project, creating an interactive virtual cell environment for research and teaching at both the undergraduate and high school levels

Keck Graduate Institute/REU Claremont, California
Conduct original research, with presentations and poster session, in elucidating the role of sterols in plant development using a proteomics approach

Lerner Research Institute/REU Cleveland, Ohio
Design and implementation of software programs for quantitative image analysis, fluorescence Microscopy and microCT in analysis of cell culture and bone, quantitative image acquisition and quantitative processing of CTP colonies and 3D bone specimens

MTA Davenport, Iowa
Database development, time studies to determine cost of production and pricing of tools

Marquette University/REU Milwaukee, Wisconsin
Quantifying trunk compensatory movements after stroke

Mayo Foundation/Mayo Clinic Rochester, Minnesota
Rewrite data analysis programs written in C into Matlab/Application of programs

Medical College of Wisconsin Milwaukee, Wisconsin
Summer Research Training Program: Biomedical Research/Anesthesiology

MedImmune Gaithersberg, Maryland
Support of cell line production; molecular/cellular biological research

Medtronic, Inc. Minneapolis, Minnesota
Review clinical data/information and oversee data correction and distribution of data clarification forms to centers and subsequent receipt of clarifications and updates for the clinical database; also, assist study manager in providing interim and final reports and presentations

Medtronic Minimed Northridge, California
Mechanical Engineering Intern, medical device company

National Institutes of Health Bethesda, Maryland
Create program for virtual colonoscopy

National Institutes of Health Stroke Diagnostics Lab Washington, DC
Perform research in the area of medical radiology, work on a project to model inflammation in the brain after ischemic stroke. In this model of stroke, a rat is injected with an ultrasmall superparamagnetic iron oxide contrast agent to visualize macrophages in the brain after transient occlusion of the middle cerebral artery

Novel Electronics Muenchen, Germany
Research in posturography

Northrup Grumman Life Support, Inc. Davenport, Iowa
Data acquisition testing and documentation/wrote procedures and performed research on various projects/researched patents

Pacific Northwest National Laboratories Richland, Washington
Basic research

Palmer College of Chiropractic Davenport, Iowa
Spine research and testing of procedures/processes

Rockwell Collins, Inc. Cedar Rapids, Iowa
Various projects involving hardware/software development and testing, image analysis, and web development for aircraft and internal applications

Rush University Medical Center Gait Lab Chicago, Illinois
Engineering Assistant, data acquisition and processing, assist with testing of study subjects

Siemens Corporate Research, Inc. Princeton, New Jersey
Design medical image analysis algorithms and develop related softwares

Siemens Medical Solutions Malvern, Pennsylvania
Basic and applied research on imaging software and applications

Straub Foundation: Summer Student Research Program Honolulu, Hawaii
Studying vascular ultrasound applications in clinical setting, an objective analysis to compare the accuracy of the handheld doppler to the duplex ultrasound scan in diagnosing venous disease

Tyco Healthcare Mallinckrodt Hazelwood, Missouri
Research and development, responsible for many different types of integrity testing to ensure that plastic syringes can withstand the pressure of power injection and that the product within the syringe remains sterile

University of Alabama-Birmingham/REU Birmingham, Alabama
Research into chemical analysis and engineering

University of California at Los Angeles/REU Los Angeles, California
Biological engineering research

UI Dept. of Orthopedics and Rehabilitation	Iowa City, Iowa
Research and experimentation on the effects of oxygen on chondrocyte cells	
UIHC Cancer Research	Iowa City, Iowa
Perform research projects requiring multiple tissue culture experiments pertaining to different drug and radiation treatments for cancer cells, while also maintaining the lab	
UIHC Facilities Services	Iowa City, Iowa
Verify UIHC engineering systems equipment layouts and collect inventory/historical data to assist in implementation of FS Facilities Management Information System	
UIHC Internal Medicine	Iowa City, Iowa
Laboratory Assistant	
UIHC Medical Research Laboratories	Iowa City, Iowa
Assist in the design and modification of a tissue culture system consisting of a rotating bioreactor experiencing simulated microgravity to enhance visualization of neurovirus expression in vitro	
UIHC Orthopedic Biomechanics Laboratory	Iowa City, Iowa
Engineering research assistant/image analysis of bone fragment geometry and physical testing	
UIHC Pediatrics Department	Iowa City, Iowa
Prepare agarose gels for radiation hybrid mapping project/technical support	
UIHC Radiology Laboratories	Iowa City, Iowa
Write code for uses in functional brain mapping	
Unilever HPC	Rolling Meadows, Illinois
Formulation and development team/hair care products	
University of Iowa Biomedical Engineering Department	Iowa City, Iowa
Writing of programs in C used to determine velocities of cells	
University of Iowa College of Engineering	Iowa City, Iowa
Software development	
University of Iowa College of Engineering Orientation Services	Iowa City, Iowa
Mentor and advise incoming 1 st year engineering students, provide guidance on scheduling, adjustment to the college, and interact with parents	
University of Iowa College of Medicine	Iowa City, Iowa
Developing software for PIC microprocessors/circuit design/testing and debug	
University of Iowa Department of Biology	Iowa City, Iowa
Field sampling, data measurement, and data analysis	

University of Iowa Department of Physics
Web Development

Iowa City, Iowa

VIDA Diagnostics

Develop, test, and document medical image processing software

Iowa City, Iowa

Vital Images, Inc.

Responsible for design, code, test and documentation of imaging software

Plymouth, Minnesota

W.L. Gore and Associates

Working in the Manufacturing Research and Development Group responsible for the design and development of the Gore Excluder and Gore TAG endovascular aortic repair devices, designed to correct aortic aneurysms in the abdominal and thoracic aortic regions. While working with this team I have participated in new device design, bench top device deployment and testing, medical imaging of deployed devices, and animal studies of preliminary device designs

Flagstaff, Arizona

Zimmer Orthopedics

Design and production of hip/shoulder joints

Warsaw, Indiana