

**The University of Iowa College of Engineering
Student Development Center/Engineering Professional Development
Cooperative Education and Internship Program**

**Biomedical Engineering
Co-op/Internship Employers and Positions 2003-07**

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| Abbott Laboratories Biological screening/global products research and development | Abbott Park, Illinois |
| Accenture Business consulting intern; work with project managers and group leaders in definition of client problems and solutions | Chicago, Illinois |
| Accumed LLC Product Development Intern; part of the team charged with the development of total replacement prosthesis of a joint in the upper extremities...design and execution of a data collection protocol to acquire anatomical data from CT and X-Ray images...data will be used to create a model of the articulating surface to assist in prosthesis design | Hillsboro, Oregon |
| AGEP Summer Research Group Resident Assistant (RA) for the Alliance for the Graduate Education and the Professoriate (AGEP)/ Alliance 2007 Summer Research Program | Iowa City, Iowa |
| Alcon Research Ltd. Ophthalmic engineering...work in the research & design sector...focus on vitreoretinal consumables...modeled the part using Pro/Engineering...sent the part out to an SLA vendor to be rapid prototyped...talking to extrusion vendors in order to critique the design in order to ensure manufacturability and minimize cost...compile the advice/quotes...to choose the best option. | Irvine, California |
| 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 |

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| 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 |
| Cellular Engineering Technology Emerging biotech company intern...research with non-embryonic stem cells | Coralville, Iowa |
| 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 Develop an organ culture system for human and porcine mitral valves | Cleveland, Ohio |
| Cook, Inc. Design and development of various styles of medical/surgical devices | Bloomington, Indiana |
| DePuy Orthopaedics, Inc Responsible for biomechanical testing and analyses/research support for all orthopaedic device product development teams/perform basic scientific studies | Warsaw, Indiana |
| Engineering Systems Inc. Organizing and researching data and information on lower limb injury study supporting ongoing engineering projects | Aurora, Illinois |
| Environmental Research Center, Texas Tech University Field and lab study of the effectiveness of riparian buffers at reducing movement of atrazine and nitrates into surface waters | Chariton, Iowa |
| Ft. Dodge Animal Health 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 | Ft. Dodge, Iowa |
| GE Corporate Research and Development Participate in 3D Digital Mammography Project/Responsible for 3D image reconstruction and processing algorithm development | Schenectady, New York |
| GE Global Research Center CT reconstruction algorithm development | Niskaya, New York |

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| Globus Medical Research Engineer, responsible for planning, coordination, successful execution and publication of various research projects for spine surgeons, residents, and product development | Phoenixville, Pennsylvania |
| Harbor Branch Ocean Institute Intern for ongoing project related to underwater imaging system...dealing with improving the quality of images acquired under oceans | Ft. Pierce, Florida |
| Hygia Health Services Medical devices, research and design, materials and product testing | Birmingham, Alabama |
| Illinois Institute of Technology 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 | Chicago, Illinois |
| Implex, Inc. Mechanical testing of biomedical prototypes and products to determine mechanical performance and properties | Cedar Knolls, New Jersey |
| Iowa Department of Natural Resources P2 Program: Hospital Systems Assist hospitals and healthcare facilities in conducting mercury assessments, environmental audits, and energy conservation | West Des Moines, Iowa |
| Iowa Department of Natural Resources P2 Program: Mercy Medical Ctr. Reduction/management of regulated medical waste, general facility recycling, pollution prevention projects | Cedar Rapids, Iowa |
| Iowa Spine Research Center/Palmer College of Chiropractic Calibration and testing of force transducers, LA 600 motion analysis system, and development of software for biomechanical data analysis and computer systems | Iowa City/Davenport, Iowa |
| Iowa State University Human Computer Interface Lab Virtual Cell Project, creating an interactive virtual cell environment for research and teaching at both the undergraduate and high school levels | Ames, Iowa |
| Jones Microbiology Institute Pharmaceutical testing for various companies | North Liberty, Iowa |
| Keck Graduate Institute/REU Conduct original research, with presentations and poster session, in elucidating the role of sterols in plant development using a proteomics approach | Claremont, California |
| Lerner Research Institute/REU 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 | Cleveland, Ohio |
| Marquette University/REU Quantifying trunk compensatory movements after stroke | Milwaukee, Wisconsin |
| Mayo Foundation/Mayo Clinic Rewrite data analysis programs written in C into Matlab/Application of programs | Rochester, Minnesota |

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| Medical College of Wisconsin Summer Research Training Program: Biomedical Research/Anesthesiology | Milwaukee, Wisconsin |
| MedImmune Support of cell line production; molecular/cellular biological research | Gaithersberg, Maryland |
| Medtronic, Inc. 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 | Minneapolis, Minnesota |
| Medtronic Minimed Mechanical Engineering Intern, medical device company | Northridge, California |
| Miracle Tools of America Database development, time studies to determine cost of production and pricing of tools | Davenport, Iowa |
| National Institutes of Health Create program for virtual colonoscopy | Bethesda, Maryland |
| National Institutes of Health Stroke Diagnostics Lab 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 | Washington, DC |
| Novel Electronics Research in posturography | Muenchen, Germany |
| Northrup Grumman Life Support, Inc. Data acquisition testing and documentation/wrote procedures and performed research on various projects/researched patents | Davenport, Iowa |
| Pacific Northwest National Laboratories Basic research | Richland, Washington |
| Palmer College of Chiropractic Spine research and testing of procedures/processes | Davenport, Iowa |
| Philips Medical CT clinical science group intern works closely with marketing and the Research and Development departments...assists both departments in the product delivery chain...main function of the group is to investigate new areas of applications, getting consumer reviews on the current products and doing comparative analysis of what other competitors have in similar products | Highland Heights, Ohio |
| Rehabilitation Institute of Chicago Summer Internship in Neural Engineering (SINE) program...conducting an experiment on the gait cycle of stroke subjects, with the hopes to later form a rehabilitation method to correct their walking pattern | Chicago, Illinois |
| REU-University of Alabama-Birmingham Research into chemical analysis and engineering | Birmingham, Alabama |

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| REU-U of CA at Berkeley Studying a kinesin-II motor protein and its role in cell division in order to identify a possible drug target for <i>Trypanosoma brucei</i> , the parasite that causes African sleeping sickness...project is largely based on studying the morphology and life cycle of mutants that are deficient in this protein using immunofluorescence microscopy techniques...also using biochemical techniques to purify portions of this kinesin for antibody purification and subsequent localization within the trypanosome. | Berkeley, California |
| REU-University of California at Los Angeles Biological engineering research | Los Angeles, California |
| Rockwell Collins, Inc. Various projects involving hardware/software development and testing, image analysis, and web development for aircraft and internal applications | Cedar Rapids, Iowa |
| Rush University Medical Center Gait Lab Engineering Assistant, data acquisition and processing, assist with testing of study subjects | Chicago, Illinois |
| Scheck and Sires Orthopedics Orthopedic Student Intern...design and fabrication of orthopedic devices...patient interaction...practitioner observation, assistance, and case review | Oak Brook Terrace, Illinois |
| Siemens Corporate Research, Inc. Design medical image analysis algorithms and develop related softwares | Princeton, New Jersey |
| Siemens Medical Solutions Basic and applied research on imaging software and applications | Malvern, Pennsylvania |
| Straub Foundation: Summer Student Research Program 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 | Honolulu, Hawaii |
| TriCity Energy, LLC Biodiesel engineering and design firm... formulate and design a process to make Tri-City Energy's glycerin marketable and profitable | Keokuk, Iowa |
| Tyco Healthcare Mallinckrodt 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 | Hazelwood, Missouri |
| UI Dept. of Orthopedics and Rehabilitation Research and experimentation on the effects of oxygen on chondrocyte cells | Iowa City, Iowa |
| UI Howard Hughes Medical Institute Muscular Dystrophy research laboratory assistant | Iowa City, Iowa |
| UIHC/UI Cancer Research Perform research projects requiring multiple tissue culture experiments pertaining to different drug and radiation treatments for cancer cells, while also maintaining the lab | Iowa City, Iowa |
| UIHC Facilities Services Verify UIHC engineering systems equipment layouts and collect inventory/historical data to assist in implementation of FS Facilities Management Information System | Iowa City, Iowa |

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| UIHC Internal Medicine Laboratory Assistant | Iowa City, Iowa |
| UIHC Medical Research Laboratories 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 | Iowa City, Iowa |
| UIHC Dept. of Neurology Research in neurological degenerative diseases, Alzheimer's and Parkinson's specifically | Iowa City, Iowa |
| UIHC Orthopedic Biomechanics Laboratory Engineering research assistant/image analysis of bone fragment geometry and physical testing | Iowa City, Iowa |
| UIHC Pediatrics Department Prepare agarose gels for radiation hybrid mapping project/technical support | Iowa City, Iowa |
| UIHC Radiology Laboratories Write code for uses in functional brain mapping | Iowa City, Iowa |
| Unilever HPC Formulation and development team/hair care products | Rolling Meadows, Illinois |
| University of Iowa Biomedical Engineering Department Writing of programs in C used to determine velocities of cells | Iowa City, Iowa |
| University of Iowa College of Engineering Software development | Iowa City, Iowa |
| University of Iowa College of Engineering Orientation Services Mentor and advise incoming 1 st year engineering students, provide guidance on scheduling, adjustment to the college, and interact with parents | Iowa City, Iowa |
| University of Iowa College of Medicine Developing software for PIC microprocessors/circuit design/testing and debug | Iowa City, Iowa |
| University of Iowa Department of Biology Field sampling, data measurement, and data analysis | Iowa City, Iowa |
| University of Iowa Department of Physics Web Development | Iowa City, Iowa |
| U.S. HHS Indian Health Service Engineering intern | Nashville, Tennessee |
| 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

Flagstaff, Arizona

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

Zimmer Orthopedics

Warsaw, Indiana

Design and production of hip/shoulder joints