

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

**Biomedical Engineering Co-op/Internship Employers
Employers and Positions, 2005-09**

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
Athena GTX Research and development for a new blood pressure cuff, coordinating electrical sensor production with an outside company, design of integrating pieces of electronics, designing electrical sensor spacing and orientation, component modeling in SolidWorks, and performing a FDA hazard analysis	Des Moines, Iowa
Biomec CardioVascular Quality Assurance Engineering Intern for medical device company	Bloomington, Minnesota
Bio::Neos Software development and testing...web development and a user interface for an existing program that catalogues ophthalmological research data...	Coralville, Iowa

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
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
China Agricultural University Immunology...producing monoclonal antibodies with paclitaxel (taxol)...to facilitate the process of obtaining these antibodies by altering concentrations of antibodies in the ELISA (Enzyme-Linked Immunosorbent Assay) process...injecting antigens derived from paclitaxel from the Pacific Yew tree (Taxus brevifolia) into mice, powerful anti-cancer drugs can be created from the resulting antibodies.	Beijing, China
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
Clover Industries Plant engineering intern	Wausau, Wisconsin
Colorado State University BME Equine Orthopedic Research Lab...testing on two novel polymers for primarily orthopedic applications... creating an injectable therapy...provide an alternative, less invasive, treatment option	Fr. Collins, Colorado
Cook, Inc. Design and development of various styles of medical/surgical devices	Bloomington, Indiana
Delnor Hospital Biomedical electronics team	Geneva, Illinois

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

Warsaw, Indiana

Eaton Corporation
Design and building of the driveshaft bearing press installation fixture for the decathlon pump and motor

Spencer, Iowa

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

ESCO
Introduced the physical design, electrical schematic design, and Programmable Control Logic program design...project involved retrofitting a new drive into an old system and updating the electrical and physical schematics.

Marion, 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

Green Dental Labs
Manufacture of crowns and bridges using different metal and porcelain material... trained to look through a microscope while using both high and low speed hand pieces used to carve and shape the copings... successfully operated different dental drills while looking through magnification... learned basic skills that will put me ahead of the class once...accepted into dental school

Rockton, Iowa

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

Integrated DNA Technologies
Quality control and assurance...lab analysis and testing.

Coralville, Iowa

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
Johnson and Johnson Orthopaedic engineering intern...update of existing design...design of new products	Skillman, New Jersey
Jones Microbiology Institute Pharmaceutical testing for various companies	North Liberty, Iowa
Katecho Manufacturing engineering intern...biomedical device contract manufacturing plant	Des Moines, 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	Cleveland, Ohio
Marquette University/REU Quantifying trunk compensatory movements after stroke	Milwaukee, Wisconsin
Medical College of Wisconsin Summer Research Training Program: Biomedical Research/Anesthesiology	Milwaukee, Wisconsin
Medical Murray Ran tests on a tray sealer to find the appropriate heat, pressure, and time to create ISO approved seals for medical devices... designed a mechanism that would allow...testing of the flow through different diameters of urinary catheters	N. Barrington, Illinois
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
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 - Harvard University – Rowland Institute Massachusetts Behavioral study...this study involves taking a look at higher level visual processing that takes place in the inferior temporal lobe (IT), namely visual object recognition...i.e. teaching rats to perform different visual tasks	Cambridge,
REU-University of Alabama-Birmingham Research into chemical analysis and engineering	Birmingham, Alabama
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
REU – Yale University Project involving the blood-brain barrier and its response to injury and foreign bodies implanted in the brain...the goal of this research is to increase the healing response of the blood-brain barrier and decrease the foreign body response upon implantation of brain micro electrodes...would give hope to thousands of amputees and physically paralyzed individuals	New Haven, Connecticut

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
Southwestern Company Book sales...territory and business management	Nashville, Tennessee
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
ThermoFisher Scientific Research and development... developing formulations and protocols to create a kit that will reduce post-transfer Western blotting test time without compromising results	Rockford, Il
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
UI – Imaging Research Orthopaedic Biomechanics Laboratory... Osteoarthritis Initiative (OAI) MRI data sets to perform some stress analysis on the knee...	Iowa City, Iowa
UI – Translational Lung Imaging Pulmonary research lab...set-up of electronics...experimental preparation	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-CardioThoracic Surgery Evaluation of a compliance chamber for attachment in series with an artificial lung	Iowa City, Iowa
UIHC Dept. of Neurology Research in neurological degenerative diseases, Alzheimer's and Parkinson's specifically	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
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 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
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
University of Iowa Facilities Management Construction engineering intern	Iowa City, Iowa
U.S. HHS Indian Health Service Engineering intern	Nashville, Tennessee

Valley Labs
Interventional Oncology (IO) unit of the Research and Development department..explored a variety of treatment methods for liver tumors, including radiofrequency and microwave ablation technology

Boulder, Colorado

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

Walt DisneyWorld
Presenter at Innoventions in Epcot..Innoventions is known as the “Road to Tomorrow” with many venues that companies have sponsored to update the public of the new and growing inventions of tomorrow...training presentations to guests

Lake Buena Vista, Florida

Zimmer Orthopedics
Design and production of hip/shoulder joints

Warsaw, Indiana