Philip Hufnal

Mechanical Engineer at Data Matrix Solutions, Inc. US Army Research Laboratory

Garnet Valley, PA - Email me on Indeed: indeed.com/r/Philip-Hufnal/c7b39416c589afcd

WORK EXPERIENCE

Mechanical Engineer

Data Matrix Solutions, Inc. US Army Research Laboratory - Aberdeen Proving Ground, MD - July 2009 to Present

• Integrated a temperature sensor into a PLC-controlled spin table by collaborating with a Bosch Rexroth sales engineer
• Creating programs in LabVIEW and developing automated sensor calibration systems
• Designing projectile hardware, sensor housings, test fixtures, creating engineering drawings in SolidWorks and interfacing with machinists

Mechanical Engineer

Mechanical Engineering Co-op - Camden, NJ - April 2008 to September 2008

• Designed electrical test fixtures and developed test procedures based on military-standard specifications
• Integrated sensors into pre-production units, gathered test data, and performed data analysis
• Presented summary of my project assignments and accomplishments to company president and engineering staff

Machine Operator and Process Engineering Office Assistant

Olympic Tool & Machine Corp - Aston, PA - June 2005 to March 2006

• Operated machining equipment (Bridgeport end mill, CNC three and four axis machines) to produce aircraft parts
• Compiled and filed drawings to maintain up to date Drawing and Specification database

EDUCATION

Masters in Bachelors Mechanical Engineering

Drexel University - Philadelphia, PA
June 2009

Bachelors in Mechanical Engineering

Drexel University - Philadelphia, PA
2004 to 2009

SKILLS

Mechanical Design in CAD environment: SolidWorks, ProE, AutoCAD/SW Simulation, Analysis in MATLAB, Maple, Excel, GD&T, Control in LabVIEW, Microsoft Office, Phantom high speed camera software, Conversant in German

ADDITIONAL INFORMATION

Senior Design Project: Integration of Force Feedback into Minimally Invasive Robotic Surgery (MIRS)

• Created master-slave surgical robot that has force feedback at the user control (master) representative of what the manipulator (slave) is sensing. Youtube: Integration of Force Feedback into Robotic Minimally Invasive Surgery
• Worked alongside an electrical and computer engineer to establish microprocessor communication and implement control laws

Professional Memberships, Clubs, Extra-curricular Pursuits
Toast Masters, Susquehanna Club
Drexel University chapter ASME
Pi Tau Sigma, Mechanical Engineering Honors Society
Indoor Aerial Robotic Competition Event Coordinator, 2007, 2008
Teaching Assistant (TA) for Statics, Fall '08, Spring '09
TA for Material Deformation and Failure, Winter '09