

WORK EXPERIENCE

US Army Corps of Engineers Project Engineer

Managed projects in electrical, mechanical and civil engineering disciplines with focus on hydroelectric dam improvements and environmental restoration. Projects included: navigation lock gate repair, turbine refurbishment, electrical station service upgrades, HVAC installation, fire protection installation, military base construction and wetlands restoration.

May 2008 - May 2011
Portland, OR

Coordinated with federal, state and local agencies. Assembled and reviewed new project plans and specs. Formed cost estimates. Negotiated proposals for extra work. Ensured contractor compliance with environmental and in-water work permits. Monitored contractor progress. Resolved conflicts with involved parties.

TTEthernet Technical Writing Intern

Completed survey comparing TTEch real-time Ethernet products to market competitors. Authored materials for client marketing based on research.

June - August 2007
Vienna, Austria

NASA Robotics Academy Intern

Tasked with developing 2D LIDAR (Light Detection and Ranging) system for future moon rover projects at the Applied Physics Laboratory, Johns Hopkins University. Successfully developed a prototype for optics and controls despite limited resources during a budget freeze.

June - August 2005
NASA Goddard Space
Flight Center, MD

PROFESSIONAL DEVELOPMENT

Professional Engineer Registration

Enrolled as Engineering Intern (OSBEELS# 83184EI, Dec 2009), Member of NSPE

Contract Administration

OSHA 10 hour Construction Safety, OSHA 30 hour Construction Safety, OSHA Fall Protection, OSHA Confined Space, CPR/First Aid, Toastmasters, DoD Contracting courses for DAWIA certification

Software

MS Office, MII (Cost Estimating), ESRI ArcGIS

Shop

Basic skills in FCAW, GMAW and SMAW Welding, Metal and Woodworking machine tools

STUDENT RESEARCH EXPERIENCE

Raytheon Engineering Clinic

Redesigned Raytheon's MONARCH motherboard for use with the CubeSat program. Prototyped CubeSat satellite to test radiation hardness of the MONARCH processor. Sourced radiation hardened equivalent parts to deliver a product ready for fabrication.

Sept - May 2008
Harvey Mudd
College, CA

NASA Microgravity University Program

Led a team of five student engineers to build and test an experimental apparatus to study two-phase flow in Reduced Gravity. Co-authored funding and experiment proposals, obtained college funding for two years and managed budget for research.

Oct 2004 - Aug 2006
NASA Johnson Space
Center, TX

CALTECH Nanofabrication Laboratory

Ran lithography processes, etching, and photoluminescence testing for Prof. Axel Scherer's Nanofabrication Laboratory at Caltech.

June - Aug 2003
California Institute of
Technology, CA

EDUCATION

Harvey Mudd College

B.S. Engineering, 2008