

August 2006 - January 2009

Offshore Model Basin

Full Time Project Engineer

Escondido, CA

- Used object-oriented techniques with Matlab to implement GUI, database mining and program automation
- Improved testing parameters and accuracy by 3% with Matlab
- Performed stress, pressure and 6 DOF motion analysis on marine structures using Matlab and Labview
- Established data acquisition using Labview software and National Instrument Data Acquisition Boards
- Managed electrical instruments including load cells, accelerometers, differential pressure transducers and optical tracking systems
- Modeled Fourier transformations to approximate marine system harmonic responses
- Measured mass properties such center of gravity, geometric height, resonance frequency and radius of gyration using Froude and Reynolds scaling
- Addressed marine structure performance issues such as VIM motion, current drag force and vibrations
- Modeled marine structures and system setup using AutoCad2000 and Rhinoceros 3.0

June 2005 - January 2006

Taiwan Semiconductor Manufacturing Corporation

Internship

Hsinchu, Taiwan

- Characterize high voltage devices using HP 4155 wafer analyzer machine and ICS software
- Worked on the improvement of various device issues such as leakage current, premature breakdown
- Addressed performance and defect issues with the IC process using SEM technology
- Analyzed 1.0/1.5 40V HV device structures using Tanner's L-edit program
- Simulated device and process behavior using Synopsys' Medici and TSupreme4 Mechanical

Engineering and Computer Science Courses: • Thermodynamics • Material Mechanics • Aerodynamics • Mechanical Failure Analysis • Scheme • Java • Oracle • Heat Transfer • Hydrodynamics • Aero-Propulsion • Visual Basic Materials: • Polyurethanes • Foam PE/PP • Kevlar • Coatings • TPE • Fiber Optics • GIPS and GEIPS Armoring