MOHSIN WAQAR
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PROFILE

Seeking an entry-level full-time position at a leading technology firm as a **mechanical engineer** to apply a blend of industry and academic experience in mechanical and control system design and project management for the design of both products and processes.

SKILLS

- Project management as applied to the design process: defining and organizing a project, coordinating and scheduling activities, tracking and managing progress.
- Knowledge of systematic design methodology and customer-focused design tools including QFD, cost/worth analysis, FMEA, morphological charts, Pugh matrix, etc.
- Mechanically skilled and resourceful. (hands-on experience with shop equipment)
- Electrical design and troubleshooting skills (i.e. use of scopes, soldering and circuit prototyping techniques). Proficient in interfacing of microcontrollers, sensors and actuators.
- Applied control theory: advanced study in classical and modern control techniques.
- Hands-on familiarity with industrial motor control, PLCs, pneumatics and industrial robots.
- Hands-on familiarity with microelectronics and MEMS fabrication, including photolithography, deposition, etching, diffusion and micro replica molding.
- Software/Programming proficiency: AutoCAD (500+ hours), Inventor (500+ hours), Pro/Engineer (700+ hours), Pro/Mechanica (150+ hours), Unigraphics (150+ hours), LabVIEW, Matlab, C, VB, some Verilog.

INDUSTRY WORK EXPERIENCE

Automation Intern
RAININ INSTRUMENT LLC, Oakland, CA, June 2005 – July 2006

- Design and complete assembly of robotic work-cell safety enclosure, conveyor system, and end-of-arm tooling for molded product assembly as well as development of PC based graphical user interface based on ActiveX controls and Visual Basic.
- Develop and document step-by-step operation and maintenance procedures for the robotic work-cell.

Truck Assembly Maintenance Co-op
NEW UNITED MOTOR MANUFACTURING INC, Fremont, CA, January – August 2004

- Provide engineering support for assembly lines, including the development of step-by-step operation manuals for truck assembly equipment.

LEADERSHIP EXPERIENCE

- Coordinated the design and fabrication of a fixed-sequence non-servo injection molding machine tending robot. Two-semester industry project (Bojo Inc., Santa Clara, CA) and two person team in 2005/2006.
- Instructed sixteen undergraduate students in topics of computed-aided data acquisition using LabVIEW and technical report writing as a Laboratory Teaching Assistant for ME120 Experimental Methods at San Jose State University, Jan – May 2006

EDUCATION

Masters of Science Degree in Mechanical Engineering, expected May 2008
Georgia Institute of Technology, Atlanta, GA

- MSME Thesis Research Topic: Robust Non-linear Observer for a Non-collocated Flexible Motion System; keywords: real-time motion control, vibration suppression, model and measurement uncertainty.
- 3.4/4.0 coursework GPA.

Bachelor of Science Degree in Mechanical Engineering, Cum Laude, May 2006
San Jose State University, San Jose, California

- 3.9/4.0 engineering coursework GPA.

ACHIEVEMENTS

- Academic Scholarship - Rotary Club of Oakland, 2000 - 2004
- Certified Engineer-In-Training - Certificate #120187, 2004
  California Board of Professional Engineers and Land Surveyors
- Graduate Research Assistantship - Georgia Institute of Technology, 2006-2008