

**SKILLS**

## Visual Communications:

SolidWorks, AutoCAD v.2.6–14, CATIA v.4, Manual drafting, Architectural design/drafting, Mechanical design/drafting, Electrical drafting, 3D modeling, Schematic drawing

## Construction, Maintenance and Fabrication:

Machining/metalworking, Commercial construction, Residential construction, Basic woodworking, Automotive maintenance/repair, Engine repair, Motorcycle maintenance/repair, Basic electronics, Audio systems

## Computer Familiarity:

Platforms: IBM-PC, Sun, SGI, IBM RS6000, and HP UNIX Workstations

Operating Systems: Solaris, Linux, IRIX, AIX, HPUX, DOS, MS Windows 95/NT/2000

Software: CATIA, AutoCAD, SolidWorks, Matlab, Mathematica,  $\text{\LaTeX}$ , MS Office, MS Project

## General:

Flight experience, Motorcycle and Auto racing experience, SCCA competition license

**EXPERIENCE**

**Mechanical Engineer**, Berkeley BioWorks, Inc., 1999–2003. Perform project management, engineering, design, drafting, documentation, and prototyping tasks for the biotechnology industry. Provide technical consultation to customers both internal and external to the company. Oversee the work of other engineers on large scale projects. Interface with both customers and vendors. Perform and manage purchasing, scheduling, and assembly tasks. Work on projects includes robotic, mechanism, fluid handling equipment, optical, gear train, fixturing, and sheet metal design, as well as analysis of manufacturability, process efficiency, tolerancing, and systems performance.

**Systems Design Engineer**, The Boeing Company, JSF Program, Mid-Fuselage IPT, 1997–1999. Utilizing CATIA v4.1.7, provided engineering design support and produced detail and installation drawings for various aircraft systems including hydraulics, secondary power, ducting, actuated doors, propulsion, ventilation, and fuels. Interpreted and generated specifications and requirements documents, and coordinated with suppliers for design/procurement of assorted systems for the X-32 A/B Joint Strike Fighter Concept Demonstrator Aircraft.

**Owner/Operator**, Simple Mind Design, 1992–1997. Produced design and construction drawings for a variety of light commercial and residential tenant improvements utilizing AutoCAD v.10–12. Designed and drafted large single-family dwellings. Produced structural drawings for use in component fabrication. Produced assembly drawings for use in production of machine components and mechanisms. Contracted to produce drawings for architect and construction company. Handled billing and purchasing arrangements for small drafting/design firm.

**Construction Expediter/Laborer**, DeWinter Construction, 1996–1997. Performed various tasks including framing, electrical, drywall, plumbing, and finish construction. Negotiated arrangements with clients and subcontractors.

**Machine Shop Assistant**, Caltech Department of Mechanical Engineering, 1996. Assisted students in the shop. Maintained equipment. Fabricated small parts from aluminum, stainless steel, brass, Delrin, and acrylic. Consulted on the fabrication of experimental apparatus.

**EDUCATION**

**BS with Honor, E&AS (Mechanical Engineering)**, California Institute of Technology, June 1996. ME program stressed statics and dynamics, lab techniques, thermodynamics and heat transfer, fluid mechanics, properties of materials, control theory, introductory robotics, machine component design, engineering design methods, and prototype fabrication. General program provided a broad basis of knowledge in physics, computer science, mathematics, and other sciences. GPA: 3.6.

**First Place, 1995 Caltech ME72 Design Contest**. Competed in and won the 1995 senior mechanical engineering design competition at the California Institute of Technology, a contest structured to provide students with real-world engineering experience by imposing time, materials, and performance constraints on a competitive engineering task.