

Dave Zucker

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As a talented problem solver with a wide breadth of skills, both technical and managerial, I'm seeking a challenging position in the product design or technology development field.

Skills

Managerial - Understanding of the product development process, for both software and hard goods. Common sense attitude. Experience taking ideas from conception to production. Comfortable working with engineers & designers as well as clients & customers. Familiar with MS Project, SharePoint, and other project management tools.

Mechanical Design - Strong working knowledge of industrial & prototype fabrication processes, including injection molding for plastics, thermoforming, CNC machining, sheet metal forming, SLA, and other rapid prototyping techniques. Proficient in SolidWorks. Knowledge of ProEngineer (Wildfire), AutoCAD, EnRoute, and GCode. Comfortable with basic operation of a vertical mill, lathe, drill press, table saw, soldering iron, and many hand tools for wood- and metalwork.

Computer - Several years experience writing software in C, C++, and Perl. Familiar with Photoshop, Illustrator, FrameMaker, Matlab, and many other programs. Comfortable with digital video editing. Understanding of databases and SQL. Knowledge of Microsoft Development and Office Tools. Can create HTML and PHP-based websites. Very comfortable learning new skills quickly.

Work Experience

Synapse Product Development
Project Manager /
Mechanical Engineer
Dec 2005 - Jun 2007

In this fast-paced company, led teams on projects from rapid prototype development to full production of commercial goods. Products ranged from handheld consumer electronics to biotech equipment. Contributed project management, creative idea generation, brainstorming, mechanical design, industrial design, user interface design, electrical engineering, software engineering, and business development.

CPO Science
Project Manager /
Industrial Designer
Jan 2003 - May 2005

Developed CPO's equipment line for middle- and high school science classes. Updated existing products, such as the Ropes & Pulleys experiment, and designed new products, like the DataCollector, optimizing for ease-of-manufacture, cost, intuitive use and educational value. Also contributed articles to several textbooks.

Bluefin Robotics
Mechanical Engineer
Jul 2002 - Dec 2002

Moved from the software department to become a member of the design team; learned the fundamentals of mechanical design working with veteran MEs on a variety of projects. Worked with the SolidWorks CAD package, designed & modified parts for the Bluefin autonomous underwater vehicles (AUV's), developed shop prints for internal & external use, and manufactured parts in the shop.

Bluefin Robotics
Software Engineer
Aug 2001 - Jul 2002

Member of a five person software division within a robotics company developing onboard and support software for autonomous underwater vehicles (AUV's).

[References available on request.]

**PatientKeeper
Software Engineer**
Sep 1999 - Mar 2001

Created a variety of software for the web, PC and handheld computer for use by doctors in hospital settings. Employee number 8 at this startup, helped company grow to 75.

**VenturCom
Software Engineer**
Jul 1998 - Sep 1999

Wrote real-time and control software for embedded systems in C and C++ for Windows NT and CE.

**NIST
Software Engineer**
May 1994 - Aug 1995

Created physics database applications for the Web, wrote technical documents in HTML, and solved UNIX system-administration problems. Created and maintained the WWW home page for the Physics Laboratory.

Education & Professional Development

SolidWorks 2005 Training at CAP Inc. Peabody, MA 2005

Life Drawing & Painting classes. Cambridge, MA 2004

Fundamentals of Fine Woodworking. The North Bennet Street School. Boston, MA 2003

Several **Programming** Courses. Boston, MA 1999 - 2001

B.A. Cum Laude with Honors in Physics. Brandeis University. Additional studies included pre-med classes and advanced classes in mathematics. Waltham, MA 1996 - 98

Freshman year. University of Maryland. College Park, MD 1995 - 96

Publications

1. Dr. Tom Hsu et al, *Physics: A First Course*. CPO Science, Peabody, MA. 2005. Contributed several textbook articles, participated in review and editing of book.
2. Dr. Tom Hsu et al, *Foundations of Physics*. CPO Science, Peabody, MA. 2003. Contributed article "Robot Navigation" and participated in review and editing.
3. "Get It On Paper", *The Patent Files*. The History Channel, Boston, MA. November 6, 2001. Actor & artist.
4. Y.-K. Kim, D. Zucker, M. Ali, and M. Rudd, *Database for Electron-Impact Total Ionization Cross Sections of Atoms and Molecules*, ICAMDATA Conference Proceedings, 1997.

Interests & Hobbies

Avid ultimate frisbee player, photographer, cyclist, traveler, tinkerer, juggler, swing dancer, and prize-winning knitter. Woodworker and amateur machinist. Volunteer tutor and science fair judge. Theatrical lighting designer for many shows in college and the community.