

## **Gordon Chang**

665 Knight Dr., Benicia CA 94510

707-704-1325

Gb2c000@yahoo.com

### **Career Goal**

- Full time, part time or contract employment in or near Benicia in any field that presents a challenge.

### **Education**

**BS Engineering**, Cal Poly State University, San Luis Obispo, CA 1990

### **Skills**

Software design, Hardware design, Acoustics, Mechanical design.

Visual Studio (C, C++, VB), APwin, Eagle (schematic capture and PCB layout), Orcad, PCAD, Solidworks, LspCAD, SwCAD (spice simulation), MLS, FFT, Oscilloscope, Spectrum analyzer, Logic analyzer.

### **Professional Experience**

**Co-owner** – *Grid 1 Audio*, Vallejo, CA, 2009-present

- Designed guitar amplifier from conception to market. Product has 2, 12" woofers, multiple switching power supplies, 60W class "D" audio output and a rechargeable LiFePo4 battery.

**Consultant** – Benicia, CA, 2007-2009

- Provided engineering services for electronics industry.
- Designed electronics for headphone kiosk used in shopping mall displays.
- Designed prototype battery powered speaker system for use with IPOD like devices. Performed circuit design, PCB layout and acoustic tuning.

**Engineer** – *NHT Inc.*, Benicia, CA 2004-2007

- Assisted in the design and manufacture of the highly acclaimed "NHT Xd" high performance audio system consisting of switching power supplies, class "D" amplifiers, digital signal processing (DSP), various interface circuits and wire assemblies.
- Wrote automated test programs for Audio Precision to perform "white box" testing on complete audio systems and sub-systems.
- Designed and built computer controlled turntable system for measuring the off axis response of loudspeakers. System includes optical feedback and graphical user interface (GUI).
- Designed PC board programs using VB and Measurement Computing data acquisition boards.
- Responsible for Intertek safety certification of several new products. This included testing the products to make sure they meet the FCC rules for radiated and conducted emissions and UL safety requirements.
- Solved production problems including defect analysis, standards and calibration.
- Wrote multi-threaded Windows program to load Xd system and filter sets over USB.
- Wrote program in VB.net for computing and displaying polar response data from frequency response data.

**Engineer** – *Starsight/Gemstar TV Guide*, Fremont, CA, 1994-2004

- Co-inventor on 2 US patents (6078348 & 6505348) and 1 foreign patent in the field of Electronic Program Guides (EPG).
- Wrote Graphical User Interface (GUI) code in “C” for telecom cable box for TV Guide application.
- Designed a Huffman compression scheme to work on Unicode characters for use with foreign languages (C & C++).
- Wrote program for receiving User Datagram Protocol (UDP) and display on TV. Used for Emergency Broadcast Messages and other system messages.
- Wrote program to read XML and convert to proprietary cable box format.
- Wrote test code for 8051 controller used in proprietary database engine.
- Solved remote control usability problem.
- Assisted in FCC certification for set top box and database engine.

**Engineer** – *Microdisc/Iota/SyQuest Technology*, Fremont, CA, 1992-1994

- Assisted in new cartridge disc drive development, primarily in ASIC debug.
- Performed environmental tests on disc drive assemblies.

**Engineer** – *Velodyne Acoustics*, San Jose, CA, 1990-1991

- Designed motion control feedback subwoofer systems.
- Designed computer controlled amplifier burn-in racks.
- Supervised customer service.
- Solved production problems.