

Alan Nishioka

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Objective: Senior hardware and software design position in embedded systems development

Education: B.S. Electrical Engineering and Computer Science, University of California, Berkeley, 1990

Experience: **RidePal**, San Francisco CA, January 2013 – Current
Designed NFC system to ticket riders boarding a bus. Wrote Android software for a Nexus 7 for GPS and NFC collection. Designed and built custom mount for Nexus 7 tablet. Built first version at TechShop. Customized Android AOSP to make Nexus 7 only run one app from boot.

TargetCast Networks, San Ramon CA, June 2005 - September 2012
Co-founder and CTO. Designed video resizing hardware to play Adobe Flash advertisements wrapped around a live video window. Wrote VHDL for Xilinx FPGA. Wrote C and C++ software for PowerPC and Intel CE4100. Designed device and server architecture. Designed PCB and mechanical drawings. This system was installed in over 1000 restaurants nationwide.

Accom Incorporated, Menlo Park CA, December 1998 - June 2005.
Designed entire high-definition digital video effects (DVE) machine. Wrote and ported C software and hardware. Used Xilinx Virtex FPGA's written in Verilog. Designed mixers, multipliers, filters and address generators. Designed 75MHz circuits. This is Accom's flagship Dveous/HD product and sells for \$180,000. Built standard-definition version of the machine using the same hardware multiplexing four channels at 54MHz.

Designed standard definition DVE on a PCI card. Used ASIC's and Altera FPGA's. SDRAM frame store, Logic Devices Filters, Texas Instruments DSP. Wrote software and hardware. Designed 54MHz circuits. This card is part of the Accom Affinity non-linear editor.

Scitex Digital Video, Redwood City CA. October 1995 - December 1998.
Designed standard definition DVE on a PCI card. Used ASIC's and Altera CPLD's. This card is part of the Microsphere non-linear editor and was OEM to Discreet Logic and Pinnacle Systems.

Strengths: Focused on finishing and shipping product
Skilled at debugging and forcing hardware and software to work together
Strong writing skills
Fast learner, especially electronic and computer subjects

Skills: Hardware: Verilog, VHDL, FPGA, microcontroller, schematic design, PC board layout
Software: C, C++, HTML, PostScript, Basic, CVS, Java, Javascript, Php, Git
Operating systems: VxWorks, Unix, GNU/Linux, Windows, Macintosh, Amiga, iOS, Android
Processors: x86, PowerPC, Microblaze, Arm
Equipment: Oscilloscope, logic analyzer, spectrum analyzer, soldering iron
Tools: Synplicity Synplify, Altera MaxPlus+II, Xilinx ISE and EDK, Orcad, Ultiboard

Honors: Stephen G. Wozniak Achievement Award, 1986
Make Magazine / IEEE Spectrum DIY contest, 2007

Associations: Institute of Electrical and Electronics Engineers (IEEE)
Society of Motion Picture and Television Engineers (SMPTE)
Eta Kappa Nu Electrical Engineering Honor Society (HKN)
Tau Beta Pi Engineering Honor Society (TBP)
Mensa