

Susan L. Pankratz
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Recent Work Experience:

6/2019 – Present 'Tech Goddess' at Center for Spiritual Living Santa Cruz
Purchasing, integration and configuration of components to optimize and streamline.
Training and ongoing support of operators on equipment.
Setup, support: Audio, video broadcast-streaming to Zoom, Facebook and Youtube using Ecamm-Live.
Documentation: wiring lists, setup guides, complete equipment list w descriptions and links to manuals.
Troubleshooting and correction of PA system set-up errors (2-page list, some quite arcane)

~1984 – Present Live Sound Tech/Engineer 'Allegro Audio'
Own, operate and repair professional PA system.
Do repairs/modifications/optimizations, and a great deal of onsite user training, on customer's PA/recording systems.
Troubleshoot and repair musical/electronic equipment using my own tools and equipment including a Tektronix oscilloscope and Met-Cal soldering iron.
<http://books57.net/AllegroAudio.html>

1/2003 – 2011 IA/Adjunct Faculty Sacramento City College 3835 Freeport Blvd Sacramento CA
Instructor for 'Live Sound Reinforcement' lecture and lab class (MUSM 306). Created and modify syllabus, handouts, homeworks, quizzes and tests, etc. for course. Created and maintained webpages for classes with links to all gear used, assignments, reference information, etc.
Reconfigured/upgraded/repared/maintained college's professional sound reinforcement system, other musical gear as needed., etc. Set up and operated PA system for 7-10 concerts per semester, which provided realistic hands-on experience for students, who used documentation like wiring lists.
Also taught 'Recording Studio Techniques' lecture class (MUSM 342) as of Spring '06.

Education:

AA Degree in Electronics (3.87 GPA) Chabot College, Hayward, CA.
AA Degree in Audio Production (4.0 GPA) Sacramento City College - included multiple classes on Digidesign Pro Tools.
UCSC Extension: C and C++, UNIX usage/programming classes.
De Anza and Cabrillo Colleges: Technical Writing and core Engineering classes. Motorola: 680X0 programming courses. Apple Developer University: Basic Macintosh Architecture, Intro to MPW. Tektronix: Oscilloscopes.

References:

Rev. Elijah Christopher elisha.christopher@gmail.com 805-368-6584
John Altmann Audio Instructor Sacramento City College 916-558-2243 AltmanJ@scc.losrios.edu

Prior Work Experience:

8/2000 - 11/2001 OS Software Test Engineer HP/Verifone, Inc 3755 Atherton Rd Rocklin, CA
Developed new test applications in C & Assembly language and modified existing test applications in response to features added to the operating system or bug reports. Isolated and diagnosed test failures to determine if caused by operating system, support/equipment/software, or test application. Created test procedure documentation using document control for distribution/modification processes. Programmed for multiple modems, RIM Mobitex wireless radio, Ericsson GSM wireless radio (using Racal GSM network simulator) as well as many proprietary OS features and proprietary hardware.

1/2000-8/2000 Failure Analysis/Product Engineering Tech Apple Computer 7440 Laguna Blvd Elk Grove
Documented test processes and problems/escalation. Modified existing test scripts to aid debugging intermittent failures. Collected and studied current product documentation including schematics, PCI buss, USB, Firewire, etc. specifications. Compiled complete data on pre-production test-build failures, 'top hitters', and yields. Trained and assisted production rework techs. Diagnosed excessive production and test script failures; escalated if necessary. Proposed changes to, rewrote a post-production audit document - a major process change.

9/92-1/97 Senior Engineering Technician Apple Computer - R&D Engineering 1 Infinite Loop Cupertino
Electrical characterization, timing analysis and validation of MP2000 system including ASIC chip set; performed failure analysis and repair. Wrote 'C' diagnostic subsystems for sound, power supplies, FLASH memory, various utility functions; modified and enhanced diagnostic test and utility code. Updated/revised Engineering Requirement Specifications (ERS). Modified and provided feedback re ASIC chip set documentation (FrameMaker). Debugged/reworked/ tested/ assembled/ supported MP100/110/120 and various development boards/systems, MP2000. Characterized MP100 power supply. Built prototype and created/updated first-pass MP2000 power supply schematic.

Supervised and instructed techs and assemblers. Documented rework/modifications/test cables, etc. and test circuits using ECS and Excel. Supported PCB (PCA) design & layout, researched electrical and mechanical information, created symbols of new components for CAD library. Filled in for project specialist and coordinator -parts procurement using SAP, rework ordering and other project management tasks. Compiled/updated data spec-sheet binder of components used. Created and updated various useful docs, including errata and revision lists and project cross-references. Organized and maintained the digital lab, including test and measurement equipment and lab stock. Created bill of materials (BOM)/X-Ys/netlists and other useful documents from PCB CAD files.

1992 Test Engineering Tech Apple Computer - Fremont Mfg 48105 Warm Springs Blvd Fremont CA 95014
Responsible for development/documentation/implementation of Spike/Eclipse/Zydeco PCB MacMinus testing from Prototype to Production Ramp, including the creation of test procedures to ISO standards. Analyzed and reported upon ROM, System and test software, as well as debugging and verifying PCB hardware functionality - Spike/Eclipse/Zydeco/Wombat & System 7.0X development. Debugged, modified and upgraded 'In-House' and HP vacuum test hardware and software with test engineers. Created test fixture wiring instructions and drawings for assemblers from PCB CAD data. Resource for production techs during failure evaluation; performed analysis; generated reports. Specified and ordered hardware for tester assembly/development via purchase requisition process - Purchasing Dept./component vendors. Member of Fremont ISO900X Calibration Team.

1986-1992 PCB Production Tech Apple Computer - Fremont Manufacturing
Component level troubleshoot, repair and test of 512K, Mac Plus, SE, IICx, and IICi CPU PCB's, Nubus video cards - board and system test failures. Worked with Test Engineering, Process Engineering and Failure Analysis concerning tester issues, component failures and production process issues. Aided Failure Analysis in running Production Verification tests concerning new parts/vendors.

Prior: Mil-Spec Electrical and Mechanical Assembly, Sound system Field Technician, System Rework Specialist, Cashier.

Skills:

OS Experience: PC: Windows 95/98/Me/2000/XP/Vista/7/8/10; Mac OS, Unix/Linux

Cross-platform programming: 'C', 'C++', and HTML

Assembly programming: PowerPC, 680x0 and ARM 6/710/StrongARM (RISC)

Unix applications: Unix shell compilers, Concept (schematic capture)

Assembler/compiler/debuggers: Diab-SDS, CodeWarrior, Macsbug, MPW, THINK Project Manager, BBEdit.

Other applications: ecs (schematic capture), SingleStep, Microsoft Office: Word, Excel, PowerPoint, Filemaker

Pro, Firefox, Chrome, Internet Explorer, Procomm, Eudora, Outlook, Timbuktu, Adobe Reader/ Exchange/

Acrobat, CodeWright, QuickView, etc. Plus various ftp apps, MacX (Unix interface), Telnet.

Other skills: Mil-spec assembly and soldering (through-hole and SMT)

Equipment:

Own: Tektronix 2245A oscilloscope, Fluke 87 and Extech 380280 DigitalMultiMeters, Krohn-Hite 5400B Function Generator, [CSI S2405 5MHz Handheld Oscilloscope](#), [Metcal SP200-11 Soldering System](#), Weller WLC 100 soldering station, multiple DC bench power supplies, passive variable power load

Used: HP and Tektronix digital and analog oscilloscopes, logic analyzers, digital multimeters (DMMs), signal generators, Data I/O and Sunsparc (Actel) EEPROM and PAL programmers, power supplies and electronic loads.