

Resume of William Alan Hunt
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EDUCATION Rice University Houston, Texas 1981-1985

Bachelor of Science in Electrical Engineering. Major areas of study include electrical engineering, computer science, and math science. Areas in electrical engineering include linear system theory and design control systems, digital system theory and design, computer architecture, VLSI design and testing, high-speed circuits, and electromagnetic wave theory. Areas in computer science include programming in PASCAL, C, and assembly language, team programming, operating systems, and algorithm theory and analysis. Areas in math science include differential equations, vector calculus, complex variables, partial differential equations, numerical analysis, and statistics. Minor areas include physics, chemistry, thermodynamics, economics, accounting, philosophy, psychology, music, and English. Graduated May 85.

WORK EXPERIENCE

4/95 - present

Design Engineer, Indiana University Cyclotron, Bloomington, IN. Sole designer from concept to PCB of VME cards controlling 100's of digital timing and analog I/O channels for a new 200 MeV synchrotron. High reliability, repeatability, and MTBF along with low MTTR were accomplished through unique analog designs, Actel FPGA's, 120M baud fiber links, with built in health monitoring tests, and active redundancy. Designed pulsed arc (30KW) and pulsed high voltage supply (25KW). (6/98 to current) designing the Tower Data Collector for BEMC of STAR at Brookhaven National Lab. This collector receives digital data from 4800 photo tubes on 30x 187Mbaud channels, stores the data, and sends data on request over 2x 1Gbaud channels. This design makes extensive use of Xilinx Virtex FPGA's, and Gbit/s fiber systems using Finisar fiber modules and HP serializers.

6/89 - 4/95

Research and Design Engineer, Indiana University Computer Science, Bloomington, IN. Designed and built student trainers, research memory systems, research CPU's, and a vast array of small projects using FPGA's and other digital technologies.

4/88 - 5/89

Research Engineer, Programmer, and Teacher, RDT Services, Inc., Houston, TX. Reverse engineered automotive fuel control systems to enhance service procedures, and teach electronics to mechanics and instructors. Made circuit diagrams of automotive subsystems by tracing out circuits including the chip dies.

5/86 - 4/88

Hardware Engineer, Power Solutions, Inc., Houston, TX. Designed and built 2000 watt switching power amplifiers for professional sound systems. The 27 lbs. amplifier produced 2000 watts into 4 ohms with 90 percent efficiency.

10/81 - 5/86

Hardware and Software Engineer, Houston Satellite Systems, Inc., Houston, TX. Sole designer for several models of home satellite TV dish positioners. Assisted in design of later models including custom VLSI integrated circuits. Company Sales went from \$100,000 to \$50,000,000 a year in four years. Sales totaled 250,000 units.

Further work experience and personal data available upon request