John Kolb III
Electrical Engineer

Washington Crossing, PA - Email me on Indeed: indeed.com/r/John-Kolb-III/ba21db700433324e

Accomplished electrical engineering professional with a proven record of fulfilling business goals and customer needs by evolving concepts into product solutions. Experience includes DSP, FPGA and Analog design for data acquisition and signal conditioning systems within the aerospace industry.

Currently seeking a position as a hardware engineer within a company with a proactive success culture.
Willing to relocate: Anywhere
Authorized to work in the US for any employer

WORK EXPERIENCE

Hardware Engineer I - II
Teletronics Technology Corporation - May 2012 to Present

Hardware Engineer I – II Analog/Digital (DSP) Signal Conditioning and Design Team Lead.

Duties & Responsibilities:
-Lead Design engineer responsible for the technical implementation plan from budgeting and initial specifications to final test & production of units. Included parts selection, purchasing/vendor selection and interface.
-Analog and Digital (DSP) electronic circuit design for various System and Signal Conditioning Cards.
Signal conditioning includes Strain, Accelerometers, Temp., and Pressure etc., A/D Converters, system interfacing, and power supplies (excitation/system) including layout for analog and digital critical paths.
- Real-time digital signal processing (DSP) algorithm design for FIR/IIR (various 6-8 pole filters) sensor filtering with dynamic error correction.
- Firmware design/development (DSP) - assembly code/C/C++ code implementations
- FPGA logic/State Machine design for interaction within a master/remote data acquisition system architecture.
- FPGA technology/design tools used include Xilinx, Altera, and Actel toolsets.
-Generated test procedures and managed/trained technicians and other engineers in support of the AS-9100 hardware validation processes.
- Customers Interface for various new and legacy hardware products for new design and product support resolution.

Engineering Internship
Honeywell Technology Solutions Incorporated - June 2009 to 2011

Duties & Responsibilities:
- LAMPS Program (helicopter) - AN/SRQ-4 Radio Terminal Set (RTS))
- Design and Replaced Video Switch Test subsystem
- Repaired and Reworked SRQ-4 Subcomponents as required.
- Obtained DOD Secret clearance and J-Std-001 Soldering Certification

EDUCATION

Bachelor's of Science in Electrical Engineering
Villanova University - Villanova, PA

2009 to 2012

SKILLS

C/C++ Programming, Matlab, TI Digital Signal Processors (TMS320V540 9Analog Devices SHARC), Microcontrollers (8-bit/16bit 8051, ATMEGA250, TEENSY 3.0,), SPICE, Verilog, FPGA Logic Design (Xilinx, Altera), Zuken Cadstar, Cadsoft EAGLE, J-STD-001 Solder Certified, Test Equipment (Oscilloscope, Bench Power supplies,and Multi-meters), Microsoft Office

ADDITIONAL INFORMATION

ENGINEERING PROJECTS:
Pressure Scanner Interface Module Design
Lead a design team in development of an interface module for pressure scanner data collection in an airborne data acquisition system. Developed analog hardware, data correction algorithms and firmware for a floating point DSP processor to perform real time operations for aircraft diagnostics.

Audio Aircraft Detection, Spring 2011-Spring 2012
Senior Capstone Project -: "Brian McCarthy Award for Engineering Design Project"
System identified the position of low flying light aircraft (Ultra-Light) using only passive audio analysis and presented direction of target. Design to functional prototype utilizing microprocessors, signal processing, and documentation.
.