

# MICHAEL T. MILES

1520 Cedar Point Drive • Niles MI 49120 • ph 269-687-9800 • mike@milestech.com

## PROFILE

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- ★ Design Engineer with extensive experience in analog, power, and audio electronics.
- ★ Expertise includes:
  - High-performance audio and analog systems
  - Linear and switch-mode power amplifiers
  - Linear and switch-mode power supplies
  - Digital control/monitor/interfacing systems.
  - 12V/automotive and 120V ac-powered systems
- ★ Creative and open-minded approach has led to numerous design innovations and inventions.
- ★ Self-motivated and energetic; simultaneously detail-oriented and goal-oriented.

## CAPABILITIES

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- ★ Design electronic products, circuits, or subsystems including amplifiers, analog signal processing, power amplifiers, and power supplies.
- ★ Design control systems and analog interfaces for microprocessor-controlled systems.
- ★ Perform a wide range of engineering tasks including research, product definition, product development, performance test/analysis, cost analysis, cost reduction, and manufacturing implementation.
- ★ Design test fixtures and manufacturing test procedures for optimum quality control and verification.
- ★ Design for NRTL listings (UL/CSA), FCC, and CE conformity.
- ★ Technical writing and electronic publishing including layout, graphic design, and photography. Creation or editing of brochures, manuals, data sheets, in print or electronic form.
- ★ Use of CAD applications for circuit simulation and analysis, circuit board design, mechanical design, graphic design, manufacturing output, and other related applications. Proficient with TINA/Pspice, Eagle, Cadstar, AutoCAD/IntelliCAD, Corel Draw, Quattro, Excel, MS Office, WordPerfect, Word and more.

## PROFESSIONAL EXPERIENCE

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### **PRESIDENT/DESIGNER**

#### **Miles Technology Inc.**

**1993 TO PRESENT**

**Niles, Michigan**

- ★ Invented, patented, designed, manufactured, and marketed the Multisonic® stereo imaging system.
- ★ Designed linear and class-D power amplifiers, switching power supplies, mixers, and other products.
- ★ Created and implemented a new topology for a high-efficiency switching power amplifier.
- ★ Designed custom versions of amplifiers for specific customers.
- ★ Created technical and sales literature, advertising designs, and a web site ([www.milestech.com](http://www.milestech.com)).
- ★ Planned and implemented marketing strategies including trade shows, advertising, and sales calls.
- ★ Managed accounting and assured profitability for products and overall operations.
- ★ Provided engineering consulting and design services for Atlas Sound, Crown International, Custom Radio Corp., EAW, Electro-Voice, ETS, Hamilton, Lor Manufacturing, Pro-Co, Whirlwind, and others..

### **CHIEF ENGINEER**

#### **Cytech Labs Ltd.**

**1990 TO 1998**

**Elkhart, Indiana**

- ★ Designed the CSL2000 PWM high-power backup inverter system for 12V automotive/RV applications.
- ★ Designed Crown International IQ products (circuits and packaging) including the SMX-6, SEQ-6, MRX-12/24, Drone, and PIP-IQ (these are all computer/network controlled audio and control-system products).
- ★ Provided creative and customer-based product definitions and designs, circuit designs, mechanical designs, documentation, and manufacturing support.
- ★ Contributed significantly toward the expansion and profitability of company operations.

## **PROFESSIONAL EXPERIENCE (CONTD.)**

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### **SENIOR PROJECT ENGINEER**

**1982 TO 1989**

#### **Electro-Voice, Inc.**

**Buchanan, Michigan**

- ★ Designed the highly-successful DeltaMax® Controllers, the first power-limiting loudspeaker controllers on the market which did not alter frequency response, the 2710 graphic equalizer with innovative Constant-Range™ filter design, a four-channel compressor/noise gate with a special low-dynamic-distortion detector circuit, an RF-immune audio mixer for remote broadcasting, two product ranges of console mixers, three different crossover/equalizer products, and a universal off-line switching power supply.
- ★ Created market and technical analyses, product definitions, electronic designs, and packaging designs.
- ★ Performed competitive product testing/comparison and cost analysis; obtained UL and CSA approval.
- ★ Utilized device modeling/circuit simulation on computer workstations for more efficient design progress.
- ★ Set up the department's first CAD system for schematic capture and PCB layout, created custom component and package libraries, and trained other personnel in effective CAD use.

### **PROJECT ENGINEER**

**1980 TO 1982**

#### **ADM Technology, Inc.**

**Roseville, Michigan**

- ★ Designed modular plug-in components for high-performance custom-designed computer-controlled mixing consoles for broadcast and film mixing.
- ★ Designed various signal-processor, amplifier, and power-supply products.
- ★ Saved the company about \$30K per year by respecifying an audio transformer.

## **PATENT/PUBLISHED PAPERS**

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- ★ "Linear-Matrix Audio-Imaging System and Image Analyzer," U.S. Pat. 5,610,986, issued March 11, 1997.
- ★ "An Optimum Linear-Matrix Stereo Imaging System," presented at the 101<sup>st</sup> Convention, Los Angeles CA, 1996 November, A.E.S. Preprint 4364 (J-4).
- ★ "A Loudspeaker-Electronics System," presented at the 84th Convention, Paris, 1988 March. Also presented at the AES 6th International Conference, Nashville TN, 1988 May, A.E.S. Preprint 2646.
- ★ "Electronic Control of Loudspeaker Systems," Presented at the All Technical Engineered Sound Conference, Montreal, Quebec, Canada, 1988 October.

## **EDUCATION**

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### **GRADUATE STUDY**

#### **College of Engineering, The University of Michigan**

**Ann Arbor, Michigan**

#### **College of Engineering, The University of Michigan - Dearborn**

**Dearborn, Michigan**

- ★ Graduate courses in microprocessor software design, digital systems, MSI/LSI design, communication systems, transistor circuit design, network analysis, mathematics, and an independent acoustics project.

### **BACHELOR OF SCIENCE IN ENGINEERING (ELECTRICAL ENGINEERING)**

#### **College of Engineering, The University of Michigan**

**Ann Arbor, Michigan**

- ★ Studied analog and digital circuit design, electroacoustics, microprocessor design, programming, etc.
- ★ Conducted independent projects dealing with acoustics, high-frequency amplifiers, and digital audio.

### **PROJECT MANAGEMENT COURSES/SEMINARS**

#### **Graduate School of Business Administration, Michigan State University**

- ★ "Project Management: Planning, Scheduling, and Control"

#### **Fred Pryor Seminars**

- ★ "Management Problems of the Technical Person"

## **MISCELLANEOUS**

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- ★ Member of AES, Syn-Aud-Con, IEEE, and AES standards committee SC-05-05 (Grounding/EMC Practices).
- ★ Presented stereo imaging theory and new technology for the Chicago and Detroit AES Sections.
- ★ Experienced musician and audio/mix engineer (live sound reinforcement, recording, and broadcast).
- ★ Other interests include music, racquetball, nature, boating, videography, and photography.