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Mark Alt
117 La Costa Court
Garland, TX 75044

Mark Alt

Summary: ◆ Engineer 25 yrs ◆ Designer ◆ Project Mgr ◆ Component Packaging Expert
◆ Optical Modules ◆ Nanotechnology ◆ RF Components ◆ Package Materials

Fields: ◆ Fiber Optics ◆ Nanotechnology ◆ MEMS ◆ Datacom ◆ Telecom

Disciplines: ◆ Mechanical Engineering ◆ Electrical Engineering ◆ CAD ◆ Software

Tools:
❶ **Mechanical CAD** (AutoCAD Inventor, Mechanical Desktop, R2008, Pro-E, …)
❷ **Project Management Software** (Microsoft Project, …)
❸ **Programming Languages/Tools** (Turbo C++, Visual Basic, …)
❹ **Web Site Development Tools** (Front Page, …)
❺ **Manufacturing Systems, MRP-II, Material Control** (Oracle, MatrixOne …)
❻ **Database Applications** (Access, …)

Education:
★ BSEE Ohio State University (OSU) 1982,
★ Southern Methodist University (SMU) Graduate Courses

Job History

Now **(Since: Jan 5, 2006)** **Senior Mechanical Engineer** ● **Photodigm Inc., Dallas area**

Business ➢ **Laser Diode Manufacturer of Gradient Surface-Emitting Lasers**

- Senior Mechanical Designer for the Company.
- Responsible for High-power Semiconductor Laser Packaging design.
- High-heat Dissipation Packaging design, including Submounts, Hermitic packages, & Modules.
- Worked with Free-space Aspherical Lens and Waveguided Frequency-doubling Crystals.
- Designed and built Thermoelectric-cooler based Test Platforms.
- Designed Robotics for High-vacuum E-beam Evaporation Chamber with Ion-Gun Scrubber.
- Implemented and Managed the 3D Solid-modeling Mechanical CAD System (Inventor).
- Designed and Build an Automatic Laser Test Station with Micropositioners and Pneumatics.
- Sealed TO5 Can type of Hermitic Laser Package with Lens.

Job History

2003-2005 **(2 yr)** **Head of Engineering Technology** ● **NanoLign, Dallas area**

Business ➢ **Nanopositioning Microelectronics Mfr, Optical & RF Devices**

- Head of Engineering for a five employee, high-tech, MEMS based, start-up company.
- Responsible for all nanotechnology packing and microelectronic component development.
- Primary designer for the company, including solid-modeling and CAD efforts.
- Designed all the chip-level, component-level, and module-level packaging.
- Expertise in hermetically-sealed, free-space optical and fiber-optical components.
- Worked with miniature free-space RF components. (Phase shifters, etc).
- Helped design KU band Satellite-tracking Phased-array Flat-panel Patch Antenna.

2002-2003 **(1 yr)** **Head Mechanical Group** ● **Sanmina SCI, Dallas area**

Business ➢ **Electronics Contract Mfr, Opto-Electronic Module Development**

- Optical Module Packaging Expert. ◆ Miniaturization, Tiny Free-space optics, Micro-positioning.
- Product Development. Components, Modules, and Cards.
- Contract Negotiations, Technical Sales, Proposal Development.
- Project Planning and Cost Development. ◆ Web Site Designer for Document Control System.

1995-2002 **(8 yrs)** **Member of Technical Staff** ● **Alcatel, Dallas area**

Business ➢ **Fiber Optic Transmission Systems, SONIT, OC-192, WDM**

- Fiber Optic Components Designer. Microwave Hybrid Designer. Active Alignment of Optics.
- Package Designer of 10Gb Laser Transmitter and Fiber Optic Receiver Packages.
- Ceramic Microcircuit Layout and Design. Microstrip & Coplanar Transmission Lines.
- CAD System Administer (AutoCAD). Computer Services Coordinator.
- Mechanical, Thermal, and Optical Analysis.

1990-1995 **(5 yrs)** **System Engineer** ● **Telephony International Inc., Dallas Area**

Business ➢ **Operator Services Systems, Class 5 Switch, Call Center Systems**

- Management Support: System Engineering, Proposals, Pricing.
- Operations and Production: MPR-II, Material Planning, Purchasing, Inventory.
- Project Engineering: Digital and Analog Telecom Board Designer.
- Software Programmer (C++).

1980-1990 **(10 yrs)** **System and Design Engineer** ● **Texas Instruments, Dallas**

Business ➢ **Avionics, Electronics, and Defense Systems**

- System Engineering on Test Technology Design Issues. ◆ Built-in-Test Hardware Design.