

Dev Kumar

studiokumar@gmail.com

Professional Experience

Applied Minds, Inc.

Glendale, California

Project Manager

Summer 2008 - Present

- o Applied Minds is a small company that invents, designs, and prototypes breakthrough products and services for both industry and government.

Intel Asia-Pacific Research & Development Ltd.

Shanghai, China

Development Manager

Winter 2006 - Summer 2008

- o Developed notebook computer reference designs for Intel platforms: Managed all functional engineering teams including Electrical, Mechanical, Thermal, Software, and Industrial Design
- o Chief architect for the world's first notebook computer motherboard standard: adoption of this standard will help make notebook components as interchangeable as desktop computer components
- o Ensured projects were on-time and under budget for a multicultural, multidisciplinary team on three continents

Tropos Networks, Inc.

Sunnyvale, California

Principal Baseband Engineer

Fall 2005 - Winter 2006

- o Managed technical development and project planning for a mobile Wi-Fi product critical to securing a \$4M public safety contract with Oklahoma City and equipping every municipal fire truck and police car with network access
- o Designed and built the world's first automotive Wi-Fi mesh router – responsible for every system in the product
- o Managed a team of internal design and test engineers as well as external design contractors

Senior Engineer

Winter 2003 - Fall 2005

- o Designed and built the digital systems of a product that allows all residents of Chaska, Minnesota to get T1 quality ISP service for \$16 a month, while offering the lowest installation cost of any network technology
- o Integrated the baseband, power, and mechanical systems of the world's highest performance outdoor Wi-Fi product
- o Designed and built a battery backup system for an outdoor Wi-Fi product that allows networks to function without interruption even if major infrastructure is destroyed

Finisar Corporation

Sunnyvale, California

Transceiver Design Engineer

Fall 2001 - Winter 2003

- o Team leader, chief architect, and system integrator for a 10Gb/s DWDM optical transceiver: the smallest, lowest power, and lowest cost way to get 10Gb/s Ethernet across metro-scale links
- o Led a team to build the world's first 10Gb/s 40km and 80km DWDM XFP transceivers: managed a team of engineers to integrate the electrical, optical, thermal, and software design of the product
- o Designed and built the world's smallest and lowest power 10Gb/s cooled EML transmitter subassembly
- o Achieved outstanding signal performance with 10Gb/s directly-modulated Distributed Feedback and Fabry-Perot lasers

California Institute of Technology

Pasadena, California

Mechanical Engineering Department:

Fall 2000 - Spring 2001

Infrastructure Development and Teaching Assistant

- o Designed and built digital and analog electronics for robotic control and theatrical display
- o Led seminars and design reviews for students in an advanced mechanical engineering design contest
- o Taught classes of students about good design practices while helping them schedule engineering projects

Astronomy Department: Instrument Design Engineer

Summer 1999

- o Designed and built components of a novel instrument to measure the polarization of the cosmic microwave background radiation
- o Developed the instrument design on campus and in the field as part of a multidisciplinary research group
- o Retrofitted equipment into existing infrastructure and sourced off-the-shelf parts from vendors to keep project on-time and under budget

Education

California Institute of Technology
Bachelor of Science with Honors:
Engineering and Applied Science

Pasadena, California
Fall 1997 - Spring 2001

- o Completed coursework in Electrical Engineering, Mechanical Engineering, Physics, Applied Physics, and Optics
- o Foreman for Dabney House party construction and special effects, 1999 – 2001

Honors

Intel Division Recognition Award Fall 2006

- o Awarded for outstanding contributions to mobile computer standards

Patents Fall 2003 - Present

- o Awarded 8 US Patents and 6 published patent applications for inventions I authored and co-authored
- o Detailed information available on request

Lightwave OFC Attendees' Choice Award Summer 2003

- o My 10Gb/s transceiver was distinguished as the "Best Subsystem" at the Optical Fiber Communication trade show

15th Annual Caltech Engineering Design Contest Fall 1999

- o Champion, Caltech ME72 Engineering Design Contest
- o Designed and built a machine that was undefeated in 7 rounds of a gladiator-style robotics tournament

56th Annual Westinghouse (Intel) Science Talent Spring 1997

Search

- o Won 6th place out of over 3,000 projects for an RF power-efficiency meter I developed for Texas Instruments

Skills

Electronic Engineering

- o Design and debugging of complex mixed-signal circuits; Multilayer PCB layout and fabrication; EMC design and testing; ESD-safe SMT soldering including fine-pitch parts; Analysis with modern test equipment e.g. oscilloscopes, spectrum analyzers, waveform generators, and network analyzers

Computer Aided Design

- o Ansoft HFSS, Mentor Graphics PowerLogic/PowerPCB, OrCAD, PSPICE, Allegro, Protel, Mathematica, Matlab, AutoCAD, SolidWorks, Pro/Engineer, Illustrator, Photoshop

Mechanical Construction

- o Drills, Lathes, Mills, Grinders, Welders, Sheet Metal; CNC machine setup and programming

Information Technology

- o Windows, Mac, and Linux/UNIX productivity software and system setup; Hardware assembly and debugging down to SMT level; Network setup, maintenance, and administration including wireless, backups, and RAID

Production

- o Familiar with most production processes for electronics and mechanics; Design for manufacturability; Design for test; Low-cost high-volume product design

Programming

- o C, 80x86 Assembly, PIC Assembly, 68HC11 Assembly, BASIC, PBASIC, PALASM, Scheme, HTML

Interests

- o Published Photographer, Sailing, Grilling, Creating Things, Adventure

*Dev Kumar CV – v.2008.07.b – studiokumar@gmail.com
references available on request*