Sanbao Zheng

Frisco, TX
-Email me on Indeed: http://www.indeed.com/r/Sanbao-Zheng/471850b7ecac63ae

Full-time technical leader positions in Power Electronics and Digital Controls.
Principal Engineer, Raytheon Technologies.
Product Architect and Principal Engineer, Philips Electronics/Philips lighting.
Senior Hardware Engineer, GE/ABB.
Senior Power Electronics Engineer, Arens Controls, LLC. (Curtis-Wright).
Research Engineer, Brookhaven National Lab.

Willing to relocate: Anywhere

Work Experience

Principal Engineer

Raytheon Technologies - Dallas, TX
September 2020 to Present

Development of Power Converters for mission critical power systems.
PCB matrix transformer design for point of load power supplies.

Senior Hardware Engineer

GE/ABB - Plano, TX
December 2017 to September 2020

Project team lead in isolated AC to DC converter developments for data center, telecom, laser, and other power industries.
Developed digitally controlled three-phase AC-DC rectifiers
Make New Technology Introduction proposals to management team. Improved performances, reliabilities, and costs of existing products.
Mentoring junior engineers.

Product Architect

Philips Electronics/Philips Lighting - Rosemont, IL
August 2011 to May 2014

Led design teams in smart LED driver developments for a wide variety of industrial lighting applications.
Architecting power converters, their digital controls, and digital communications in
Lighting industries.
Product road map creation and design specification generation according to market needs and customer requirements.
Oversaw the full new product design cycles from schematics capturing, PCB layouts, prototyping, EMC mitigation, design verification and qualification, engineering and manufacturing integration, to massive productions.
Gave guidance to magnetic designs and thermal management designs.
Led design teams release more than 10 products, and reduced 30% of costs on some of the existing designs.

Senior Power Electronics Engineer

Arens Controls, LLC. (now part of Curtis-Wright). - Arlington Heights, IL
June 2005 to August 2009

Developed hardware and software for bi-directional dc-dc and ac-dc power converters used in hybrid vehicles.
Worked on motor drive and its controls for hybrid vehicles.
Use of DSP for power converter controls. DSP software architecting and coding.
Hands-on experiences in power converter hardware designs, analog designs, digital peripheral designs, and DSP coding with C and Assembly language.

Research Engineer

Brookhaven National Lab - Upton, NY
May 2002 to June 2005

Developed and maintained high power RF amplifiers for Particle Accelerators.
Developed power supplies for RF amplifiers.

Research Fellow

Graduate School Research Projects at New York Univ and Huazhong Univ Sci/Tech
December 1999 to January 2000

HV power supply for precipitators with DSP controlled phase-shifting resonant converter.
Digital controlled power system protective relays.

Electrical Engineer

Laser Research Institute, Huazhong University of Science and Technology - Wuhan, China
July 1992 to August 1996

Developed switching mode power supplies for Medical Lasers.
Power and analog circuit design and PCB layout.

Education

PhD. in Electrical and Computer Engineering

New York University-Polytechnic School of Engineering - Brooklyn, NY
2003

Master of Engineering in Electrical Engineering, Focused on Power System Automation

Huazhong University of Science and Technology - Wuhan, CN
1999

Bachelor of Science in Electrical Engineering

Huazhong University of Science and Technology - Wuhan, CN
1992

Skills

- Mentor Graphic
- Allegro Cadence

- C++
- Debugging
- Ansys
- Manufacturing
- Power converters
- Mathcad
- Microsoft Office
- Research
- MATLAB
- EMC
- Power electronics
- Pspice
- Mathcad
- Assembly
- Magnetics
- Maxwell 3D
- Data center experience
- Research & development
- simetrix/simplis
- Firmware
- Mentoring
- C
- Laboratory experience
- PCB
- xpedition
- digital controls
- Plecs