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Systems engineer with more than 5 years experience in critical radar and communication systems with strong theoretical background in simulation, especially electromagnetic domain combined with a very reliable hands-on approach and a good understanding of system level issues and engineering processes.

Team player who enjoys challenges and takes initiatives reliably under pressure.

WORK EXPERIENCE

May 2003 – date: Systems Design Engineer Raytheon Systems Limited – Harlow

Working as part of a design team for air traffic control radar systems, conducted several systems activities on NATS RSS contract to replace UK's air traffic control radar sites.

Design Team Lead: Responsible for technical management of the design for Burrington radar site upgrade, management of requirements using DOORS database. Primary technical point of contact for customer. Lead Design engineer for turning gear synchronisation system, liaising with subcontractors ensuring correct system integration and managing project from design to qualification and sell-off. Involvement in Six Sigma process improvement and cost reduction activities.

Studies: Responsible for providing safeguarding analysis and interference reports. Reviewer of all technical papers involving non-trivial calculations. Internal point of contact for radar coverage simulation activities using HTZ Warfare.

Technical Support: Support of customer working on live radar sites or during planned facility interrupts. On call for customer technical emergencies.

April 2002 – April 2003:

An accident prevented me from taking any full time employment. During recovery I provided IT training for a local association.

May 2000- March 2002: Systems Design Engineer Nortel Networks – Harlow

Working as part of an international systems design team for high capacity, SONET/SDH long haul optical networks, as release and optical interfaces prime, conducted several systems activities.

Release Prime: Delivery and tracking the system level requirements for three releases. Introduction of emerging technologies such as Gigabit Ethernet. Controlled, guided and reviewed design and verification activities.

Customer Support: Supported deployment teams. Solved customer queries on functionality and compliance to industry standards. As optical interfaces prime, resolved all queries related to this area.

Studies: Researched future functionality: power and thermal management, optical switching… Lab research in optics and electronics, controlling compatibility with platforms and standards, automated optical power equalisation operation. Conducted assessment of in-house or bought-out products.

June 1999 - December 1999: RF Design Hewlett-Packard (Agilent) ICO – Ipswich

Designed, simulated and optimised the high frequency electromagnetic scattering parameters of integrated circuits and packages in use for 2.5 and 10 Gbit/s optoelectronic communications using HP-HFSS software.

Tested development versions of HP-HFSS software and communicated with the design team to correct errors and improve simulation results and interface. Set-up simulation process for use of HP-HFSS.

EDUCATION

1999
Diplôme d'ingénieur
Applied Physics engineer
INSA (National Institute for Applied Sciences)
Toulouse, FRANCE

Strong background in sciences, maths, physics, with extensive hands-on engineering techniques, electronics, signal processing and IT
Applied physics engineering: electromagnetism – optics – semiconductor devices – materials science – testing, automation and instrumentation

1999
MSc in lasers communication
Essex University

Optoelectronic devices, optics of fibres and lasers, telecom networks theory. Participation in several seminars
Combined degree as part of the EU SOCRATES scholarship

Summer 1998: Electromagnetic Sensor Design Geoservices – Le Blanc Mesnil (France)

Designed and optimised a new Resistivity While Drilling sensor. Analysed the electromagnetic waves propagation in the formations producing C and Fortran computer models. Improved the antennas layout and design in collaboration with the electronics department.

Summer 1997: Semi conductor devices production Motorola – Toulouse (France)

Production of Bipolar and MOS devices in class 10 and 100 clean rooms. Optimised the furnaces set-up to increase yield and reduce operating costs following 6σ constraints.

University projects:

1999: Measurement and modelling of the reflectivity spectrum in VCSEL structures.

3 months MSc project: Designed an automated reflectivity spectrum measurement bench. Modelling GaAs dielectric constants in undocumented ranges and simulation the reflectivity spectrum of VCSEL using MATLAB, produced an analysis of different effects linked to production defects.

1998: Characterisation and temperature regulation in a magnetic measurement set-up.

6 months project led in collaboration with the CNRS (National Centre for Scientific Research). Automated the measurement using LabWindows/CVI to interface with controls and sensors using RS-232 and GPIB links. Analysed and simulated the temperature variations and implemented a compensation algorithm.

COMPUTER SCIENCE

Languages: working with ANSI C and Assembling Language, basic knowledge of Java. On Windows and UNIX systems. Simulations with MATLAB, Mathematica, Excel VBA.

Instrumentation: worked with VXI, VME and IEEE 488 (GPIB) bus, RS-232 link and DAQ-cards under GNU tools, Labview, LabWindows/CVI and Hp Vee.

LANGUAGES

FRENCH: mother tongue ENGLISH: fluent SPANISH: fluent CHINESE: intermediate

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INTERESTS

Collecting and programming of vintage HP calculators - IT, maths, statistics
Keeping up to date with current affairs - Travel, discovering cultures and languages
Boomerang at international level - hiking