

Thierry Nguema

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Computational Physicist/Developer

Research and Development position with a high-growth engineering company or laboratory for a professional who combines hands-on experience with solid educational background in Physics Research and Software Development.

Competencies Include

- Mathematical Modeling and Statistical Analysis
- Numerical Analysis and Simulation
- Data Collection Interpretation and Signal Treatment
- Mass Spectrometry Analysis and Development.
- Computer System and Numerical Electronic
- Object-Oriented and Real-Time Programming
- Software, Web Design and Development
- Troubleshooting / Training

Summary

- Numerical study and simulation of a new type of quadrupolar radio-frequency ion trap for the use in Mass Spectrometry.
- Study of new type of electronic detector using multiple anodes.
- Used Monte Carlo Simulation Method for the study of ion behavior within trap boundaries to obtain mass spectrum post-analysis of ion impact on multiple anode detectors.
- Study and numerical development of Signal Treatments based on empirical evaluations performed on ion trajectories and mass spectrum.
- Worked as Project Manager and developer of multiple applications including:
E-commerce web site, Web-based reporting tool, Web-based control Document, .Net technology
- Use of UML or Merise for software engineering
- Working as Network-System Engineer for the implement of new architecture with some duties as IT support Desk, Administrating NT Domain User/Group, Active Directory, Call Manager, account created, printer, server
- Performed lectures at the University of Provence in France.

Professional Achievements

Research Scientist

06/2000-12/2000

Laboratory of Electronic and Microelectronic (CNRS), Marseille, France

Research Scientist-Software Developer –java

Algorithms research

Research and Development of Graphical User Interface for the piloting of a prototypical robotic hand built for microbiology experimentation. Researched based understanding to develop algorithms in order to perform robot movement in three dimensional space.

09/1994-07/1998

Molecular and Ionic Laboratory (CNRS) Marseille, France

Research Scientist-Numerical Analysis and Simulation

Study and Simulation of new analysis method in mass spectrometry using 2 Paul' traps

Using Monte-Carlo simulation, the creation of ionized particles and ultimate trajectory impact to a new type of multi-anodal detector were evaluated. The mass spectrum is obtained by analyzing particle impact. The new signal treatment developed improved the metrological characteristics including: limit of detection, signal visibility and resolution.

09/1993-09/1994

Spatial Astronomical Laboratory (CNRS), Marseille, France

Research Scientist-Numerical analysis and Simulation

Theoretical study and numerical simulation of the light's diffusion in solar mass ejection during the solar eclipse

Assisted with the International project LASCO (one of 11 projects of the satellite SOHO) in developing one of the 3 coronagraphs (C2) for the Hubble mission to observe the central zone of the sun (1.5 to 6 solar rays) during a solar eclipse. The project included many agencies such as ESA (European Space Agency), NASA (National Aeronautic and Space Administration) and Intercosmos (Soviet Agency).

Software Engineer

07/2007-Present

SoftCreatif Software Engineering & Web Development

Self Entrepreneur/ Consulting

Development of web based applications, web site and E-Commerce web-site for individuals and small businesses.

09/2007-02/2009

Automation Direct, Inc. Atlanta, Georgia

QA Testing Engineer/ Embedded System Development (entry level)

Installing and upgrading Firmware to electronic devices such as PLC and C-more. Programming electronic chip (M27C*) using a chip writer (GANG). Performed several crash tests on different types of units and servers.

02/2005-05/2007

Hansgrohe, Inc Atlanta, Georgia

.NET Developer/ Network System Administrator

Responsible for writing and developing applications and processes within the quality control department. Development of a web-based control document that allows publishing, downloading, uploading, and maintaining internal documentation such as policies and procedures, product specification and training manuals.

Technology Proficiency

- **Languages:** FORTRAN 77/90, java, C#, ASP.Net, C/C++, PHP, Perl, XML...
- **DBMSs:** MS Sql Server, Mysql, Oracle, AccessX
- **Network/System/ Platform:** W2000, NT, XP, Vista, TCP/IP, CISCO, WindowsX, MacX, Unix/Linux, Vax/vms, Midas
- **Application Server/Protocol:** IIS, Apache, Tomcat, Jrun, Jboss, Websphere, SOAP, COM, Assembly

Teaching and Association Memberships

1995-1998 University of Provence-(DU/DESS Instrumentation)

Performed practical work and lectures to undergraduate students

1998-2003 Mathematics and Physics to individual students at Academia, France

ASMS *American Society of Mass Spectrometry*

APS *American Physical Society*

Education

1998 –PhD in Physics

Ionic and Molecular Interactions Laboratory

University of Provence, France

1994 – DEA (5 years) Plasma Physics

Nuclear fusion, Astrophysics, Computational physics

University of Provence, France

1992 – Master Sc. Applied Physic

Electronic, Energy and Radiation

University of Limoges, France

2003 – Project Management Certification

School: French Association of Audit and Professional Education (AFCEPF)

Paris, France

2000 – B.S. in Computer Science

School: Center of Mathematic and Informatics (CMI)

Marseille, France

Reference and Publication upon request