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// JANUARY-2005, ver 2.4.1
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**Systems Engineer**  
Real Time Systems Developer

**Simulation Engineer**  
Software Consultant  
Software Engineer  
Scientific Software Developer  
3D Software Developer  
C/C++ Developer  
Unix/Linux Developer

**Mechanical Engineer**  
Structural Engineer  
Biomechanical engineer  
Test Engineer  
Design Engineer  
Stress Analysis Engineer  
Finite Element Analyst  
Drafter/Designer

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// Education

Federal University of Uberlândia -- Uberlândia, MG - Brazil
College of Mechanical Engineering
2003-2006 Doctor degree (working!)
1995-1999 Master degree
1990-1995 Graduate degree
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// Experience

Self Employed -- Uberlândia, MG - Brazil
X Systems
2003-present Scientific software development
Real Time Systems,
Mechatronic Systems,
Predictive Maintenance System,
Machinery Vibration Analysis System,
Digital X-ray,
Digital Image Processing,
Computer Graphics,
Scientific Visualization,
Finite Element Analisis
Biomechanics
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Federal University of Uberlândia -- Uberlândia, MG - Brazil  
**College of Mechanical Engineering**  
2004-2002 Professor  
1998-1999 Professor

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// **Skills**

Skill	Level	Experience
C/C++	Expert	14 years
VC++	Expert	10 years
MFC/Win32	Expert	5 years
Qt	Expert	4 years
OpenGL	Expert	7 years
Unix/Linux	Expert	6 years
Finite Element Analysis	Expert	6 years
CAD	Expert	10 years

**Computational tools and APIs**, gcc, cygwin, cvs, STL, UML, XML, SQL, MPI, shell script, Matlab, LabView, MicroStation, AutoCAD, Ansys, Tecplot, OpenDX

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// **Interests**

**Object-Oriented Analysis and Design**, Templates, Design Patterns, Agile Programming, Extreme Programming

**Scientific Computation**, Finite Element Method, Finite Difference Method, Sparse Systems, Multigrid Method, Data Structures, Algorithms, Digital Signal Processing

**Parallel processing**, Clusters, Multi-process, Multi-threading

**Scientific Visualization**, Computer Graphics, Computer Vision, Computer Geometry, Digital Image Processing, Volume Rendering

**Real Time and Embedded Systems**, Unix, Linux, RTAI-Linux, I/O, Streams, Sockets, Processes, Signals, Timers, Posix threads, Inter-process communication, Shared memory, Device drivers

**Computational mechanics**, Numerical Modeling, Mathematical Modeling, Finite Element Analysis, Solid Mechanic, Nonlinear Mechanic, Mechanical Design Optimization, Material Behavior, Failure Analysis and Prevention, Fatigue, Damage Dynamic, Multibody Systems, Rotordynamic, Vibration, Fluid-structure Interaction

**Biomechanic**, CAD/CAE/CAM, Finite Element Analysis, Photoelasticity, Quantitative Computed Tomography, Micro-CT, Tissues Modeling and Remodeling, Dentistry, Failure Analysis, Post/Implant Design, Thermo/Occlusal/Shrinkage Load, Polymerization, Residual Stress, Adhesive Interface, Inverse Problems, Numerical Material Property Characterization

**Maintenance**, Machinery Vibration Analysis, Robotic Inspection, Digital Imaging Inspection Systems, Digital X-ray Imaging Inspection, Ultrasonic Imaging Inspection, Thermal Imaging Inspection

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