

Bernardo Vergne Dias

Personal Data

- Marital Status: Single
- Date of Birth: 10/28/1984. Barreiras-BA. Brazil.
- Nationality: Brazilian
- Address: SCRN 706/707, Bloco H, Entrada 19, Apto. 201. Asa Norte. CEP 70.740-680. Brasília, Distrito Federal, Brazil.

Education

- 2008- **M. Sc. in Electrical Engineer (Interactive Digital Television)**
University of Brasília, UnB, Distrito Federal, Brazil.
- 2002-2007 **B. Sc. in Communication Networks Engineering**
University of Brasília, UnB, Distrito Federal, Brazil.
Honor of Merit award: student recognized for best academic accomplishment

Skills

- Programming Languages: Java2 (SE,EE,ME), C# .NET, PHP, C++ (basic)
- Mobile (Cellular) and Web Development (Java2 and Frameworks)
- Microsoft Windows Platform (Win32 APIs) and Linux (Basic)
- Interactive Digital TV (Architectures and Software Development)
- Distributed Computing (WebServices, CORBA, RMI)
- Design Patterns (MVC, DAO, Command, Singleton, Injection)
- Databases (PL/SQL, Modeling)
- System Analysis (RUP and UML)
- Mobile Communications (Generation 3/4, Network Dimensioning, Modulations)
- Communication Network Protocols
- Data Security (Encryption Algorithms, Math Fundamentals)
- Artificial Neural Networks (ANN)
- Microcontrollers (VHDL, Assembly)

Professional Experience

- 2008- **Ministério da Educação / CAPES**
Consultant, Solutions Architect. Programa Universidade Aberta do Brasil.
- 2006-2008 **Accenture, Brasília-DF**
System Analyst. Outsourcing services. BrasilTelecom's PrePaid Project.
System Modeling and Development (Java) / Platform Integration.
References: BrasilVirtualNet, PrePaid's Gateway and Management Portal, Tangram, Pontis, G-OTA.
Keywords: JSF, Hibernate, Struts, Velocity, Castor, Ajax, WAP/WML, CSS, CORBA.
- 2006 **INdT - Nokia Technology Institute, Brasília-DF**
Member of WiSiL - Wireless Simulation Laboratory.
References: researching in third generation cellular networks; development of link-level simulator (C++ for Linux)
- 2004-2006 **UnB Communication Department, Brasília-DF**
Trainee. Development of the University web portal (www.unb.br).
References: content management system (CMS); access and privileges control; statistics; database modeling.

- 2005 **UnB Extention School, Brasília-DF**
 Instructor of SQL Basics Course. Duration: 32 hours.
 Content: Diagraming, Basic SQL, Advanced objects, Security, Transactions, Development Enviroments.
- 2004-2005 **UnB Communication Networks Engineering Laboratory, Brasília-DF**
 Web Development and Servers Maintenance. Faculty of Technology (FT).

Softwares

- 2008 **PKI-Based Electronic Electoral System for Sagem Orga**
 An electronic ballot-box is controlled by an authentication system, which validates the user (voter) by matching his finger prints with a token (smart card) owned by him. UnB and Sagem Orga, Brasília-DF.
 Keywords: Java 6, SmartCard, PKI.
- 2008 **Banco do Brasil T-Banking**
 MHP / Ginga-J application for iTV. It supports return channel, security and a rich graphical user interface. UnB and Banco do Brasil, Brasília-DF.
 Keywords: MHP, JavaTV, HAVi, DAVIC, GEM.
- 2008 **Nortel Meet-Me**
 A front-end (JavaEE website) for the *Nortel Multimedia Communications Server 5200* (WebServices). UnB and Nortel Networks, Brasília-DF.
 Palavras-chave: Java 5, WebServices, Axis, Log4J.
- 2008 **Authentication and Billing System for Internet Access**
 Two Java applications: (1) Website, with RADIUS authentication, LDAP provisioning and CDRs (charge data records) generation; (2) Gateway, which provides a back-end for the Website and performs traffic monitoring, user session control and firewall's rules configuring (on the fly). UnB and Nortel Networks, Brasília-DF.
 Keywords: Java 5, jRadius, Spring-Ldap, Spring-MVC, Plain Socket, XML, Wireshark, PacketFilter, TCP/IP, DHCP, Log4J.
- 2007 **Pontis Content-Synchronizer**
 Java application. Performs content synchronization between two WAP platforms of the BrasilTelecom company. Accenture, Brasília-DF.
 Keywords: Java 6, WebServices, Axis/JAX-WS, Log4J.
- 2006 **UIManager Framework for DTV**
 Development of a graphical user interface framework for MHP / GEM. Design of t-Commerce and t-Banking solutions. UnB Digital TV Laboratory, Brasília-DF.
 Keywords: DVB-J / MHP, OpenTV H2O, Ginga-NCL, JavaTV, Xlet, HAVi, DAVIC.
- 2006 **M-PSK Simulator**
Link-level simulator (PSK modulation) developed in C++ for Linux. WiSiL research group (Wireless Simulation Laboratory), INdT (Nokia Technology Institute, Brazil).
- 2006 **Multiplayer Bluetooth Game for Nokia 6600 cellular**
Mobile version of Link4 game. Multi-tier modeling, event-driven. UnB, Brasília-DF.
 Keywords: J2ME, CLDC1.0, MIDP2.0, Bluetooth.
- 2006 **M-QAM Simulator**
 Java M-QAM Simulator with optimal detector (coherent correlators, synchronous) and AWGN channel (additive white Gaussian noise). UnB, Brasília-DF.
- 2006 **Cellular Networks Dimensioning**
 Java application designed for cellular network analysis and dimensioning. Input: modulation parameters, traffic and environment details, technical specifications of ERB and mobile equipment. UnB, Brasilia-DF.
- 2005 **Web Security Challenge**
 Development of a website that steals user personal. UnB, Brasília-DF.
 Keywords: C# .NET, PHP, POP3, SMTP, Quoted-printable, DHTML, ActiveX, JS integration, Microsoft Secure Scripting/Inicialization, IE On-demand install, Auto-update (DLL version control),

INF (driver installation description, hooks), Cabinet Packing, Signing (Microsoft Authenticode), C#, COM Objects / COM interop, Win32 low-level API, Windows Registry, Windows Installer.

2003-2007 **Websites:**

- 7ª e 8ª Electrical Engineering Week
- UnB Networks Engineering Laboratory
- Networks Engineering Academic Center
- First Seminar of IT Governance and Management
- Creditum Consultores Associados

More information about sites and projects: www.bernardoweb.net (Portuguese)

2003

Audio Manager

Features: profiles, auto audio tagging, dynamic item selection, backup and restoring system, IDv1 and IDv2 tag editor, mp3 technical information viewer, reports, skin, Winamp remote control (through Windows kernel32 message API). ActiveX component developing. Uses low-level Wind32 API (for graphical drawing, system callback...). VB6.

Courses

2005

Zope Technical Solutions

Duration: 40 hours. Simples Consultoria, Brasília-DF.

Keywords: Zope, ZMI, ZPT, Archtypes, DTML, Actions, Plone, Skins, Portlets.

1998-2000

English: Basic, Intermediate and Advanced

Duration: 360 hours. Instituto Máster, Barreiras-BA.

Brasília-DF, February of 2009