Pascal Nunes

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SKILLS

Languages

· proficient in C#, Javascript, SQL
· working experience with PHP, Python, shell scripting, Java, C++

Frameworks

· OR Mapping frameworks (Hibernate, Microsoft Entity Framework)
· Web frameworks ASP.Net, jQuery, JSON
· Winforms, windows apps
· WCF, WF
· Android(Java)

Data

· worked with Microsoft Sql Server and mySQL for application and ORM development
· working experience with Microsoft Reporting Services

CAREER

Technical Architect   **Reliable Software**, April 2012 - Current

· Architected an in memory data warehouse server to aggregate real time tick and ask/bid data from several market feeds
· Decided on the application stack, libraries, frameworks used
· Setup continuous integration, automated testing, build processes
· Implemented various statistical indicators, signal generators and market watches
· Created tools for analyzing and charting real-time market data
· Developed a real time content delivery network and application servers to push market data to thousands of clients over UDP, TCP, HTTP, FTP.

Associate Technical Architect   **Neorithm Technologies**, Sep 2008 - Apr 2012

· one of the **founders of this startup**, I led the technology R&D across the company's product lines
· developed a rule engine to identify **risky** transactions in a bank, which led to an **anti money laundering** product currently deployed at several banks
· developed a **business intelligence** product, where a financial institutions' relational data is imported into a SSAS cube, and analyzed in a pivot table built in **Flex and Java**
· developed a C# API to emulate a **versioned filesystem**, with pluggable storage support; in particular, a file–system and a relational database back–ends are ready
· oversaw the development of a **loan management system**, where potential customers were identified and clustered based on various financial, demographic and personal parameters
· Responded to several RFP from banks
· undertook consulting assignments on behalf of neorithm for performance optimization

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Senior Software Engineer   **Finacus Solutions**, Nov 2007 - Aug 2008

- developed an **enterprise application development framework**, consisting of workflows, an ORM framework, message queues and code generators for an ASP.Net based UI
- assisted in the development of an **ATM switch**, which could be theoretically support any ATM protocol; in particular, the ISO 8583, Diebold and NCR protocols were developed which performed **thousands of real time transactions per second**.
- played a major role in improving the **usability** of web applications, using AJAX to bring desktop–like features to web applications

Software Engineer   **Hexaware Technologies Ltd.**, Jul 2006 - Nov 2007

- Developed a **home banking** solution for AXA Belgium having domestic and foreign transfers, easy credit, account statements
- Travelled to Belgium for user acceptance testing, coordinated all offshore development during this period
- Received Hexaware's Ace award for outstanding contribution to the project.

PROJECTS

1. **RSDB:**
   - **Product Summary** This is an in memory array based database. It is highly inspired by kdb+ and supports a programming language similar to Q. It can be hosted as a data server and clients can connect over TCP, named pipes or MSMQ. Hosted objects can also be accessed over HTTP using REST based calls.
   - **Technologies**   C#, winforms, TCP, HTTP
   - **Role**   Technical Architect
   - **Team Size**   4
   - **Responsibilities**
     - Developed a fast in memory database
     - Developed a query parsing engine
     - Provided TCP, pipes, MSMQ and HTTP interfaces to RSDB

2. **TradeGenie:**
   - **Product Summary** This is Reliable Software's automated trading product. It supports building technical indicator based strategies to generate signals, supports back testing, chart based analysis.
   - **Technologies**   C#, winforms, TCP,
   - **Role**   Technical Architect
   - **Team Size**   4
   - **Responsibilities**
     - Developed a technical indicator based signal generator
     - Order management system
     - Exchange parsers
     - Application servers and content delivery network to deliver market data to clients

3. **Mercury Framework :**
    - · **Product Summary** This is the base framework upon which all neorithm's products are built.
    - · **Technologies**   ASP.NET, C#, SQL server 2008, MDX
    - · **Role**   Technical Architect
    - · **Team Size**   5
    - · **Responsibilities**
        - ■ Developed a set of custom controls for rapid application development
        - ■ Implemented centralized data layer using ORM like **Entity Framework** and **NHibernate**
        - ■ Implemented a highly available POS service using ISO 8583 standard
        - ■ Service framework for long running jobs

4. **Anti Money Laundering :**
    - · **Product Summary** This product detects and reports several money laundering activities and frauds in banks.
    - · **Technologies**   ASP.NET, C#, SQL server 2008, SSAS, SSIS, SSRS, MDX.
    - · **Role**   Developer
    - · **Team Size**   4
    - · **Responsibilities**
        - ■ Research and gathered product requirements
        - ■ Designed ETL packages to load legacy data into data mart using Microsoft SSIS
        - ■ Developed OLAP cube using Microsoft SSAS to analyze a suspicious activities
        - ■ Generated STR,CTR and CCR in electronic data file format as required by RBI
        - ■ Generated reports using SSRS
        - ■ Developed modules like KYC, Customer Identification Process using OFAC and SDN list, automatic case generation etc.

5. **Corporate Business Analysis and Reporting :**
    - · **Product Summary** This product is acts as a DSS which helps banks to analyze several financial activities.
    - · **Technologies**   SSAS, SSIS, SSRS, MDX, ASP.NET, C#, SQL server 2008.
    - · **Role**   Developer
    - · **Team Size**   4
    - · **Responsibilities**
        - ■ Designed incremental packages to load source data into data mart using SSIS
        - ■ Generated reports using SSRS and MD model
        - ■ Develop front end model for displaying reports in web application

6. **Loan Origination System :**
    - · **Product Summary**   This web application is used to support the loan application processing needs of bank
    - · **Technologies**   ASP.NET,C#, SQL server 2008
    - · **Role**   Developer
    - · **Team Size**   4
    - · **Responsibilities**
        - ■ Developed modules like loan enquiry, loan application, loan sanctioning, loan approval, loan disbursement etc.
        - ■ Generated reports and display them to front end using Microsoft Report Viewer

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CERTIFICATIONS
· OCA

EDUCATION
Bachelor of Engineering (Computers)   Jul 2002 - Jun 2006
St. Francis Institute of Technology

ACADEMIC EXPERIENCE
· Developed the distributed query execution engine for **T**he **D**istributed **D**ata**B**ase (TDDB), a true distributed database built from the ground up on **linux in c++**, which conforms to the SQL-92 syntax (http://tddb.sourceforge.net/)
· Developed an award winning message board that allowed rating, upvoting and commenting
· Was the college web-master, maintained the website and on-line registrations for various events

EXTRACURRICULAR ACTIVITIES
· Active answerer on QnA site stackoverflow
· Won many programming contests around the Mumbai University campus during engineering studies
· Conducted seminars on game programming, networks, c++, C#, PHP, mySQL at several colleges in Mumbai
· Conducted professional training for Java at Hexaware

OPEN SOURCE CONTRIBUTIONS
· **ReportSync**: A project to sync reports between large SSRS instances (http://code.google.com/p/reportsync/)
· **FolderPatch**: A utility that compares folders, finds differences, and generates and applies patches. (http://code.google.com/p/folderpatch/)