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**OBJECTIVE:** Remote corp-to-corp contract development in C#.

**SUMMARY:** Designed systems using the Unified Modeling Language (UML), Rational Unified process, Rumbaugh (OMT), Booch methods, Rational Rose, Paradigm Plus and Cayenne case tools. Experienced with Entity-Relationship Data Modeling, SQL SERVER, Oracle10g, DB2, WCF Web Services, Message Oriented Middleware (MOM), XML, WML, XSLT, Microsoft Commerce Server, Microsoft .NET 3.5 Framework, C#, AJAX, J#, VB, COM, MFC on Windows 2000. M.Sc. Software Engineering from Oxford University. Citizen of Canada and Philippines. Permanent resident of New Zealand

**HARDWARE:  
AND  
SOFTWARE** IBM RS6000 Model 970, SUN SPARC 10, HP 9000, Pentium, Token Ring LAN, 3Com LAN, HP LaserJet, AIX 3.2, Linux, TCP/IP, Novell Local Area Network Operating System, UNIX, Java, J2EE, EJB, Websphere WSAD 5.0, BEA Weblogic, JSP, WML, XML, XSLT, SOAP, WSDL, UDDI, Microsoft Commerce Server, Websphere MQ Series 5.3, Microsoft Visual Studio .NET, ASP.NET, C#, AJAX, Visual Basic.NET, ADO.NET, Visual J# .NET, ORACLE 10g, DB/2, SYBASE 4.9.2, INGRES, Informix, Versant, HP700, Assembly, Windows 2000, Rational Rose, clearcase, AIX, XWindow/Motif X.11 R5, OS/2 Presentation Manager, Hummingbird Exceed-W X- Windows Emulator, Purify, GURU Expert Systems Development Tool, C Set++ on OS/2, Paradigm Plus, DB-VISTA, MDBS III Network Model Database, Sparcworks C++, Belgian Institute Of Management PROLOG, Rogue Wave, HP-UX, HP C++, GNU C++, Borland C++ 4.0, tcl, Centerline, rcs, sccs, CORBA, Orbix, Inprise Visibroker for Java/C++, Verve workflow engine, Windows Mobile 6, MongoDB, Azure cloud NoSQL databases .

**SAMPLE CODE:** <https://github.com/jatcorominas/customer-rest-ASPDOTNETCORE2.1-inmemory-db.git>  
<https://github.com/jatcorominas/customer-rest-ASPDOTNETCORE2.1-MongoDB.git>  
<https://github.com/jatcorominas/angular6customerportal.git>  
<https://github.com/jatcorominas/reactReduxCustomerPortal>  
Angular 1.x Directives security vulnerability, <http://jsfiddle.net/87xehzn6/4/>

**EXPERIENCE:** **Tangerine Bank** Canada March 2019 to present  
**Contract Senior Developer**. Designed marketing applications in an Agile environment and implemented it with MongoDB and Windows Azure NoSQL, Microsoft SQLSERVER 2012, SSIS, Microsoft DOTNET using Visual Studio 2015, WPF, TFS, Angular 7.0, React JS 16.3, Node JS frameworks, on the Docker Virtual Machine on the Windows and Unix operating systems.

Created marketing campaign user interfaces with Open Text, email campaigns with IBM Silverpop, HTML5, JSON, CSS, JavaScript and integrated it with the Angular 7 and React 16.3, Redux frameworks.

Secured the REST API with pre-authentication filters that validate OAuth2 tokens and implement role based access control.

Redesigned and implemented the existing AngularJS 1.x framework to Angular 7 and React 16.3, Redux and integrated it with the NodeJS middleware

Set up REST API with ASP .NET MVC to interface the front end with the Mongo DB back office applications

Designed and implemented REST Web Services to support database CRUD operations to the using the Jersey API and Oracle JDBC.

**EXPERIENCE:** **Royal Bank of Canada, Canada** Nov 2018 to March 2019  
**Contract Senior Developer.** Designed fund accounting big data applications using Nifi, Kafka, Elasticsearch, Kibana, Mongo DB, HDFS Hadoop, Active MQ, Angular 7, React 16.3, Node JS, Microsoft DOTNET using Visual Studio 2017, WPF, TFS, bootstrap, REST Web Services Jenkins, Git Hub, Maven, Gradle, Karma, Protractor, Rally, Jira, Confluence, Bluemix on the Windows and OSX operating systems.

Designed and implemented user interfaces for net asset value dashboards using Visual Studio 2017 ASP.NET MVC, Angular 7, React 16.3, HTML5, JSON, CSS, JavaScript and integrated it with the NodeJS middleware.

Implemented single sign on with a pre-authentication filter that validates a OAuth2 token and role based access privileges

Set up REST API with ASP.NET MVC to interface the net asset value dashboards with the Mongo DB net asset value collections

Ingested data from the HDFS Hadoop data lake to the Elasticsearch using Nifi and Active MQ.

Transfer net asset value data from Elasticsearch to MongoDB using Kafka topics.

**EXPERIENCE:** **Great West Life Insurance Co. Canada** March to November 2018  
**Contract Senior Developer.** Designed term life insurance applications in an Agile environment and implemented it with MongoDB and Windows Azure NoSQL, Microsoft SQLSERVER 2012, SSIS, Microsoft DOTNET using Visual Studio 2015, WPF, TFS, Angular JS 5.0, React JS 16.3, Node JS frameworks, Twilio, redis cache on the Docker Virtual Machine on the Windows and OSX operating systems.

Designed and implemented user interfaces for scripts and callflows using Visual Studio 2015 ASP.NET MVC, Angular 5, React 16.3, Web API REST Web Services, WPF, Entity Framework and Winforms. HTML5, JSON, CSS, JavaScript and integrated it with the Node JS middleware.

Secured the REST API with a pre-authentication filter that validates a Webseal reverse proxy token and role based privileges.

Set up Rest API calls to consume the Bambora REST API to validate and process credit card and banking transactions.

Created a REST API controller in a Node JS server to consume the PDFReactor REST API to generate PDF files from HTML pages.

Created REST Web Services with the Web API REST Web services to support database CRUD operations to the MySQL relational database, the MongoDB NoSQL scripts database and the callflow data in the Redis cache.

**Stericycle Communications. Canada** August 2017 to March 2018  
**Contract Senior Developer.** Designed healthcare telephony applications in an Agile environment and implemented it with MongoDB and Windows Azure NoSQL, Microsoft SQLSERVER 2012, SSIS, Microsoft DOTNET using Visual Studio 2015, WPF, TFS, Angular JS 2.0, React JS 16.0, Node JS frameworks, Twilio, redis cache on the Ubuntu Linux Vagrant Virtual Machine on the Windows and OSX operating systems.

Designed and implemented user interfaces for scripts and callflows using Visual Studio 2015 ASP.NET MVC, Angular 2, React 16.0, Web API REST Web Services, WPF, Entity Framework and Winforms. HTML5, JSON, CSS, JavaScript and integrated it with the Node JS middleware.

Implemented single sign on with a pre-authentication filter that validates a

OAuth2 token and role based access privileges

Designed asynchronous call centre applications in Node JS to the Twilio telephony library.

Interfaced the Node JS callflow application with the IBM Watson automatic speech recognition library to facilitate speech to text processing.

Created REST Web Services with the Web API REST Web services to support database CRUD operations to the MySQL relational database, the MongoDB NoSQL scripts database and the callflow data in the Redis cache.

**DAC Group** Canada December 2016 to August 2017  
**Contract Senior Developer.** Designed and developed Reputation Management applications that integrated Google My Business and web content with MongoDB and Windows Azure NoSQL , Microsoft SQLSERVER 2012, SSIS, Microsoft DOTNET using Visual Studio 2015, WPF, TFS, Angular JS 2.0, React 16.0, Node JS frameworks.

Identified a security vulnerability with Angular 1.x directives to justify adopting Angular 2. Set up an OAuth2 C# component to prevent unauthorized access.

Created and user interfaces for Reputation Management applications with Angular JS 2.0 the ngx-clipboard directive, Visual Studio 2015 ASP.NET MVC, Angular 2.0, React 16.0, Web API REST Web Services, WPF, Entity Framework and Winforms.

Set up the logical data model and optimized it using selective denormalization at the physical database level. Implemented it with the Entity Framework and ADO.NET on MSSQLSERVER 2012, MongoDB and Windows Azure NoSQL databases on the cloud.

Improved the reliability of http calls to the Google MyBusiness API by repeating it more than once in the event of a timeout exception.

Reduced Windows Azure cloud access costs by 60% by creating a unit test framework that sets up test data on the cloud database only once.

**AT&T Quickplay** Canada February to December 2016  
**Contract Senior Developer.** Designed and developed Web TV applications that integrated CRM and web content with Microsoft SQLSERVER 2012, SSIS, Biztalk 2013, Microsoft DOTNET using Visual Studio 2013, WPF, TFS, Angular JS 2.0, React 15.0, Node JS and J2EE frameworks.

Created and implemented user interfaces for WeB TV applications with Angular JS 2.0, Visual Studio 2015 ASP.NET MVC, Angular 2.0, React 15.0, Web API REST Web Services, WPF, Entity Framework and Winforms.

Set up the logical data model and optimized it using selective denormalization at the physical database level. Implemented it with the Entity Framework and ADO.NET on MSSQLSERVER 2012, MongoDB and Windows Azure NoSQL databases on the cloud.

Designed BizTalk 2013 orchestrations to facilitate the seamless integration of the J2EE loyalty promotions applications the Oracle database and Microsoft Dynamics Great Plains.

Developed a scalable mobile architecture that leverages Visual Studio 2015 the Google Notification Service, Apple Notification service to deliver promotions notifications to iOS 8 and Android 4.4.0 mobile devices.

Designed a reusable OAuth2 component with nonces to prevent replay attacks.

**Advantex Marketing**      Canada      November 2014 to February 2016  
**Contract Senior Developer.** Designed and developed loyalty program applications that integrated CRM and web content with Microsoft SQLSERVER 2012, SSIS, Biztalk 2013, Microsoft DOTNET using Visual Studio 2013, WPF, TFS, Angular JS 1.5, React 15, Node JS and J2EE frameworks.

Created and implemented user interfaces for loyalty program applications with Angular JS 1.5, Visual Studio 2013, Angular JS 1.5, React 15, ASP.NET MVC, Web API REST Web Services, WPF, Entity Framework and Winforms.

Set up the logical data model and optimized it using selective denormalization at the physical database level. Implemented it with the Entity Framework and ADO.NET on MSSQLSERVER 2012 and MongoDB NoSQL.

Designed BizTalk 2013 orchestrations to facilitate the seamless integration of the J2EE loyalty promotions applications the Oracle database and Microsoft Dynamics Great Plains.

Developed a scalable mobile architecture that leverages Visual Studio 2013 the Google Notification Service, Apple Notification service to deliver promotions notifications to iOS 8 and Android 4.4.0 mobile devices.

Designed a reusable Identity Access Management architecture to standardize role based access control throughout the enterprise

**Walton International**, Canada,      January to November 2014  
**Contract Senior Developer.** Designed and developed land banking applications that , integrated of Salesforce.com, Apex, Visualforce and Microsoft Dynamics, Sharepoint 2010, WPF, Angular JS 1.5, J2EE and Microsoft DOTNET frameworks using BizTalk 2013.

Created and implemented user interfaces with Angular JS 1.5, Visual Studio 2013 ASP.NET MVC, Web API REST Web Services, WPF, Entity Framework, and Winforms for land banking applications.

Designed the logical data model and optimized it using selective denormalization at the physical database level.

Implemented the data model with the Entity Framework and ADO.NET on MSSQLSERVER 2012 and MongoDB NoSQL.

Designed Visual Studio 2013 web service contracts to facilitate the seamless integration of BizTalk 2013, Salesforce.com, Informatica ETL, MSSQL Server, and Microsoft Dynamics AX

Integrated the Salesforce Singapore and Hong Kong customer and sales orders with the J2EE based Informatica ETL using web services contracts invoked through MuleSoft ESB Salesforce connectors.

**Alberta Blue Cross**      Canada      July 2013 to January 2014  
**Contract Senior Developer.** Designed and developed insurance software using BizTalk 2010, MSSQLSERVER 2008, Angular JS 1.2, Oracle, Entity Framework, Object Relational Mapping and DotNet 4.0.

Created and implemented user interfaces with Angular JS 1.2, Visual Studio 2013 ASP.NET MVC, Web API REST Web Services, WPF, Entity Framework and Winforms for health insurance applications.

Designed Visual Studio 2013 web service contracts to facilitate the seamless integration of BizTalk 2006 R2/2013, MSSQL Server.

Designed logical data models using and entity relationship data modeling techniques.

Optimized it using selective denormalization at the physical database level.

Implemented the data model using Entity Framework and ADO.NET o MSSQLSERVER 2008

**Logic Enterprises Oceania** NZ/Canada, August 2010 to July 2013  
**Contract Senior Developer.** Designed a service oriented architecture for fixed income applications to integrate Winforms, ASP.NET, WPF, Biztalk 2009, C#, SQLSERVER 2008, ADO.NET, SAP R3, ASP.NET MVC and Spring .NET IoC, MSMQ. Remote contract from Canada and NZ.

Created and implemented user interfaces with Visual Studio 2012 ASP.NET MVC, Web API REST Web Services, WPF, Entity Framework and Winforms for interest rate swaps and bonds fixed income applications.

Set up an optimized data model with selective de-normalization techniques for the ADO.NET SQLSERVER 2008 database.

Advised developers on applying object modeling principles to derive the solution to the business problems identified by the use cases.

Designed Visual Studio 2012 C# web service contracts to facilitate the seamless integration of BizTalk 2009, SAP R3, Asp .NET MVC, ADO.NET and MSMQ.

Worked with the security architecture team to devise enterprise single sign on and information rights access privileges for users.

**Bank of New Zealand** NZ March to August 2010  
**Contract Senior Developer.** Designed a service oriented architecture for financial applications to integrate BizTalk 2006 R2 applications with ASP.NET MVC, ADO.NET, Winforms, C#, Spring.NET IOC, WPF, SQLSERVER 2005.

Implemented user interfaces with ASP.Net MVC, Web API REST Web Services, WPF, Entity Framework, and Winforms for interest rate swaps and bonds fixed income applications.

Mentored developers on applying object modeling principles to derive the solution to the business problems identified by the use cases.

Designed web service contracts to integrate BizTalk using Visual Studio 2010 WCF web services.

Used the BizTalk MQ adapters to integrate with the Websphere Process Server and MQ series to facilitate real time payments.

Created an optimized data model with selective de-normalization techniques for the ADO.NET SQLSERVER 2008 database.

**Logic Enterprises Oceania**                      NZ                      Oct 16, 2009 to March 2010  
**Contract Senior Developer.** Created a service oriented architecture for fixed income applications to integrate Biztalk 2006 R2, C#, SQLSERVER 2005, SAP R3, ADO.NET, ASP.NET MVC and Entity Framework. Remote contract from NZ

Designed and implemented user interfaces with Winforms and ASP.Net and an optimized database with ADO.NET SQLSERVER 2008.

Coached developers on applying object modeling principles to derive the solution to the business problems identified by the use cases.

Designed web service contracts to facilitate the seamless integration of BizTalk 2006 R2, SAP R3, ADO.NET, Asp .NET MVC, Entity Framework Web API REST Web Services, WPF and Spring .NET IoC

**Foodstuffs**                                      NZ                                      July 23 to Oct 16, 2009  
**Contract Senior Developer.** Created a service oriented architecture to integrate SAP ERP 6.0 and the Retailix POS with BizTalk 2006 R2, Microsoft .NET 3.5, WCF Web Services, C#, Winforms, Asp.NET MVC, Entity Framework, Web API REST Web Services, WPF, ADO.NET and SQLSERVER 2005.

Architected the interface between the SAP ERP module and Retailix using BizTalk Maps and WCF Web Service send and receive ports.

Generated SAP ERP segment XML schemas with the BizTalk SAP LOB Adapter and mapped it to the Retailix XML schemas.

Created pure messaging BAM reports to guage the effectiveness of the POS integration with SAP.

**Datacom**                                      NZ                                      June 8 – July 6, 2009  
**Contract Senior Developer.** Datacom is NZ's largest systems integrator. Followed the Scrum/Agile method to architect a web sub-site for an insurance client to integrate Winforms, ASP.NET, WCF Web Services, BizTalk 2006 R2, ADO.NET and SQLSERVER 2005 applications.

**Gen-I**    NZ    April - June 2009  
**Contract Senior Developer.** Gen-I is the software solutions consulting arm of Telecom NZ. Architected an order management system for telecom services using the Scrum/Agile method, Enterprise Architect, BizTalk 2006 R2 integration with WCF Web Services, C#, ASP.NET, Winforms, ADO.NET and SQLSERVER 2005 on Windows 2003 Server.

**Independent Contractor**                      Philippines                      April 2006 to March 2009  
**Contract Senior Developer.** Architected risk analysis software with RUP. Implemented it in Java J2EE, Websphere 5.0, MQ Series, WML, XML, JSP, Struts, and Oracle8i on a Sun Workstation.

**Merrill Lynch**                                      USA                                      October 20, 2005 – March 24, 2006  
**Contract Senior Developer.** Merrill Lynch specialises in derivative securities, IPO's, mergers and acquisitions. Relational applications design for the Benefits



On Line (BOL) system using entity relationship data modeling with TOAD,  
Microsoft Visual Studio 2005 C# .net and Oracle 9i database on Windows 2000.

**Jacor Solutions** UK April to Oct 2005  
**Contract Senior Developer.** Architected fixed income applications using RUP,  
Rational Rose. Implemented it with C#, Winforms, ASP.NET Web Services,  
MQSeries.

**Barclay's Global Investing,** UK Jan to April 2005  
**Contract Senior Developer.** BGI specialises in trading derivative securities,  
IPO's, mergers and acquisitions. Architected fixed income applications using  
RUP. Implemented it with C#, Winforms, ASP.NET WSDL, NUnit 2.0, MQ Series  
5.3, SQLSERVER, Oracle 10g and Sybase 12.5.3 on Windows 2000.

**Credit Suisse First Bank of Boston, UK** August to December 2004  
**Contract Senior Developer.** CSFB specialises in trading derivative securities,  
IPO's, mergers and acquisitions. Architected fixed income systems using RUP.  
Implemented it with MQ Series 5.3, XML, Winforms, ASP.NET, WSDL, C#,  
SQLSERVER, Oracle, NUnit on Windows 2000.

**Jacor Solutions,** UK January-August 2004  
**Contract Senior Developer.** Architected interest rate derivative systems with  
RUP, UML. Implemented it with web services, XML, ASP.NET, C#, C++,  
SQLSERVER, MQ Series 5.3, Oracle 10g on Windows 2000 Server.

**Carnival Cruise Lines., USA** Sept 2003 to Jan 2004  
**Contract Senior Developer.** Carnival Cruise Lines is a leading travel and leisure  
organization in North America. Designed a gifts web site with UML, RUP.  
Implemented it with Microsoft Commerce Server, SQL SERVER, XML, WSDL,  
Winforms and ASP.NET C# on Windows 2000 Server.

**Metavante Corporation/M&I Bank** USA April to Sept 2003  
**Contract Senior Developer.** M&I Bank is a leading retail and investment bank in  
the Midwest of the USA. Architected fixed income derivative systems with RUP,  
UML. Implemented it with web services, XML, Winforms, ASP.NET, C#, C++,  
SQLSERVER, MQ Series 5.3, Oracle8i on Windows 2000 Server.

**Independent Contractor,** Dec 2001 to April 2003  
**Contract Senior Developer.** Architected fixed income derivative systems with  
RUP, UML. Implemented it with Web services, XML, Winforms, ASP.NET, C#,  
MQ Series 5.3, SQLSERVER, Oracle8i on Windows 2000 Server.

**Key Bank** USA June to Dec 2001  
**Contract Senior Developer.** Key Bank is a leading retail and investment bank.  
Designed interest rate caps/floors, swaps and credit default swap front office  
trading systems using the RUP. Implemented the design with Microsoft .NET,  
SOAP, XML, C#, C++, MQ Series 5.3, Winforms, ASP.NET, Oracle8i

**Wells Fargo Bank** USA October 2000 to April 2001  
**Contract Senior Developer.** Wells Fargo Bank is the leading retail and  
investment bank in California. Architected fixed income applications with the  
RUP. Implemented it with Visual C++, XML, MQ Series 5.3 and Oracle8i on  
WindowsNT

**Nitorum Corporation** USA Feb. to October 2000

**Contract Web Developer.** Nitorum Corporation develops and markets Intelligage, a B2B product for on-line auctions. Applied the Rational Unified Process and RUP to design the web architecture. Implemented it with Java, I-Planet, Weblogic 4.5.1, Oracle 8i, XML, XSL and JSP, on Sun Solaris and Windows NT 4.0.

**Merrill Lynch,** USA May 1999 to Feb 2000  
**Contract Senior Developer.** Merrill Lynch specialises in trading derivative securities, IPO's, mergers and acquisitions. Architected interest rate caps/floors and swaps derivative trading systems with RUP. Implemented it with Microsoft Visual C++, J++, MFC, COM and Oracle8i

**Sprint** USA Feb. 1998 to April 1999  
**Contract Senior Developer.** Sprint is a leading telecommunication service provider in the USA. Architected CORBA distributed systems for the Interactive On Demand Network using RUP. Implemented it with Microsoft SAPI, COM, Visual C++, MFC, Visual J++ and Oracle8i.

**Saber Group.** USA June 1997 to Feb. 1998  
**Contract Senior Developer.** Sabre is the world's leading airline reservations service provider. Applied the FUSION process and OMT to design a custom Airline Reservation System. Implemented it in Java, C++, Orbix and Versant.

**Country Companies Insurance Company** USA Feb 3 to May 31, 1997  
**Contract Senior Developer.** Country Companies is a provider of life insurance products. Architected distributed software for the using IBM C Set++, DB2 database, DSOM CORBA object request broker on the OS/2 operating system.

**Dalmatian Group** USA July 1996 to Jan. 1997  
**Software Developer.** Dalmatian was a leading software consulting firm that specialises in custom software for Fortune 500 clients. Applied the Booch method to port a GUI generator from XWindow/Motif to Windows NT.

**IBM** Canada May 1995-July 1996  
**Contract Software Designer.** IBM is one of the world's leading suppliers of software consulting services. Applied the OMT method to design the user interface of the Opportunity Management Tool sales tracking application.

**Cedera** Canada February to May 1995  
**Contract Software Designer.** Cedera is Canada's leading provider of medical imaging software. Designed and implemented software using C and X/Window Motif on the UNIX operating system and the HP700 and Sun Solaris hardware.

**Canadian Imperial Bank of Commerce.** Aug 1994 to May 1995  
**Contract Software Developer.** CIBC is one of Canada's leading retail and investment banks. Applied the Semantic Object Modeling Approach (SOMA) to design the Financial Analytics Simulation Toolkit. Implemented it with Visual C++, Windows 3.1 SDK and Sybase 4.9.2

**Numetrix Limited,** Canada Oct. 1993 to Aug. 1994  
**Software Developer.** Numetrix Limited was a leading provider of logistics and supply chain management software. Participated in architecting the Supply Chain Integrator. Implemented it with C++, SYBASE, Rogue Wave Tools and XWindow/Motif on the HP 9000 Apollo.

**Canadian Imperial Bank Of Commerce** June to Oct. 1993



**Systems Designer.** The Canadian Imperial Bank of Commerce is one of Canada's leading retail and investment banks. Architected risk analysis software with the Semantic Object Modeling Approach (SOMA). Implemented it with Visual C++, MS-Windows SDK 3.1 and SYBASE 4.9.2 on the SUN SPARC 10.

**Royal Le Page,** Canada May 1992 to June 1993  
**Database Designer.** Royal Le Page is the leading real estate firm in Canada. Entity relationship data modeling on the Ingres database on the IBM RS6000.

**Security Life Insurance Co.,** Canada Nov. 1991 to May 1992  
**Systems Analyst.** Security Life is a provider of life insurance, retirement plans and annuities. Analysed requirements for an administration system database that was implemented in Oracle 6, C and TCP/IP that ran on a UNIX platform.

**North American Life Ins. Co.,** Canada July to Oct. 1991  
**Contract Systems Analyst.** North American was one of Canada's leading life and casualty insurance providers. Designed user acceptance tests for the IBM 3090 Insurance Marketing Administration Claims System.

**King Saud University,** Saudi Arabia July 1989 to Jan 1991  
**Software Engineer.** King Saud University is an institution of higher learning in Saudi Arabia. Analysed, designed and implemented Arabic-English software in C and Assembly for the 80386 PC without being fluent in written or spoken Arabic.

**Philippine Coconut Authority** Oct. 1, 1988 to Jan. 28, 1989  
**Computer Software Consultant.** The Philippine Coconut Authority is the leading coconut plant research institute in the Philippines. Analysed user requirements and designed an experimental design expert system for coconut crop research.

**Social Weather Stations** June to September 1988  
**Expert Systems Consultant.** Social Weather Stations is a leading opinion survey firm. Knowledge engineering with GURU and C for ECOKNOWMICS, a Balance of Payments expert system.

**Development Academy of the Philippines** Feb 1987 – March 1988  
**Computer Software Consultant.** The DAP is a leading government think-tank. Designed database applications for the Department of Education

**Corporate Education Resources,** USA Nov. 1984 – Jan. 1987  
**Software Engineer.** Corporate Education Resources developed and marketed succession planning software to Fortune 500 companies. Product development in C, MDBS III and INFORMIX for the Executive TRACK application.

**TRAINING:  
SEMINARS**

**Object Oriented Methods**  
Unified process, UML, Requirements Engineering, Fusion process, Rumbaugh, Booch, Semantic Object Modeling Approach, Rational Rose, Clearcase

**ORACLE Relational Database Management Courses**  
Data Modeling, Relational Systems Design, Introduction to SQL Plus, Introduction to SQL Forms, SQL Reportwriter.

**INGRES Relational Database Courses**  
Ingres for Application Developers, Embedded SQL C for 'C' programmers, Designing High Performance Systems

**IBM AIX Courses**

AIX V.3 for Users, Basic Systems Administration

**Microsoft Courses**

Windows Mobile 6 Development Training

<b>EDUCATION:</b>	M.Sc. Software Engineering	2003
	Oxford University, England	
	M.Sc. Management Science	1983
	Imperial College Of Science and Technology	
	M.Sc. Statistics	1980
	London School Of Economics	
	B.Sc. Economics	1978
	London School Of Economics	