

JORDI CORBILLA

DIRECTOR OF APPLICATION DEVELOPMENT

SUMMARY

A multi-skilled Software Engineer with good all-round ability to lead multiple projects and meet deadlines whilst at the same time comprehending complex and interdependent business processes and products. Professional with strong computer science fundamentals and 17+ years of Software engineering experience with 9 years as a technical Architect with a very stable career history. Very capable with an ability to identify and then deal with a client's needs by translating them into appropriate technical solutions. Proven mentor and trainer, skilled at communicating with all organisational levels and cross-functional teams to develop a shared vision and foster a culture of excellence.

Now looking for a new and challenging Engineering Manager/Director position, one which will make best use of my existing skills and experience and also further my development.

AREAS OF EXPERTISE

<ul style="list-style-type: none">• Database technologies (SQLServer, Oracle)• Solutions Architecture, technical design• Documentation & Reporting• C#, Python, Delphi, Java, C++, C, VB6, Ruby• TCP/IP, COM, DCOM, ActiveX• Web technologies: ASP.NET Webforms, WPF, WCF, ASP.NET MVC 5, Web API's (REST, json), jQuery, JavaScript, CSS, Ajax, HTML, .NET 4.8, .NET Core 3.1, SignalR, Knockoutjs, Reactjs, Angular, Blazor.• Security: OWASP, SSL, HTTPS, IIS Configuration, Pen Testing.• Python (NumPy, SciPy and Pandas)	<ul style="list-style-type: none">• Mentoring/Coaching.• Troubleshooting / Problem solver.• Process improvement.• Multi-threading, HPC, AI and ML.• IBM WebSphere, MSMQ.• TDD, BDD, CI, CD, SOLID, Scrum.• Android Studio, PhoneGap.• VMWare, Docker, Kubernetes.• TeamCity.• UI/UX design.• Integration: Bloomberg, Geneva.• Cloud: AWS (S3, CloudFront).• Deep Learning: Tensorflow and Keras.
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EXPERIENCE

Director of Application Development

February 2019 to current, [VR Capital Group](#) – London (UK).

- Full stack hands-on Director, driving the end-to-end enterprise solutions and the delivery of end-to-end architectures providing full digital transformations of new products and services.
- Owning the deliveries, quality, and timeline.
- Approaching projects with a forward-thinking mindset and with disrupting technologies.
- Improve route-to-live processes using DevOps, testing automation and quality control.
- Directing and coaching distributed agile teams, making sure there is accountable incremental transformation daily to increase the value we deliver through technology to our business stakeholders.
- Performance optimisation & building robust intelligent solutions to problems.
- Innovate whilst bringing in new ideas.
- Taking full ownership of the end-to-end delivery/deployment, technical roadmaps, choice of technologies and implementation of best practices and KPIs.
- Architecting and developing critical-mission finance/trading systems using C#, Python, ASP.NET core, SQL Server, TDD, Docker, Kubernetes, responsive websites (HTML5), React and Blazor.
- Leading the Agile transformation and DevOps culture adoption.

Lead Software Engineer / Solutions Architect

February 2016 to February 2019, [VR Capital Group](#) – London (UK).

- Architecting and Developing in-house investment, trading, analytics systems using ASP.NET, WPF, Rx, PHP, Scrum, C#, SQL Server, TDD, MVC, JavaScript, Python, CSS, jQuery, SignalR, Knockoutjs, Reactjs, XML, API, Web Services, HTML, DHTML, Rx, Design Patterns, and REST. (Full Stack).

- Provide support to trading desks across multiple locations (NY, Moscow, Dubai and London).
- Leading the design and specification of all system components considering functionality, data, security, integration, infrastructure and performance.
- Multiple project handling whilst assessing other Developers workload.
- Contributing to the platform redesign and architectural choices to shape the future of technology for the group.
- Developing for the full stack of the solution back-end using ASP.NET MVC and the front-end using HTML5 (Bootstrap).
- Collaborating with remote development teams (NY, Ukraine), to build a true global team.
- Helping to establish a long-lasting and repeatable software development standard across the team using Agile methodologies.
- Participating in code reviews across all areas of the team, to improve the quality of the delivered solutions.
- Contributing to the overall security and vulnerabilities of the applications. (OWASP).
- Contributing to the establishment of a culture of TDD, BDD and CD.
- Working across green-field projects to support new market opportunities, improve process efficiencies, reduce operational risk, improve platform scalability and regulatory changes.
- Working collaboratively with trading desks worldwide to deliver strategic end objectives.
- MIFID II Trade Regulatory Reporting, RHUB and FIX Messaging.
- Supporting legacy ASP.NET and PHP applications.
- Delivering high quality IT Service within the company.
- Working with experienced .NET C# developers to help design, code and test a wide range of key business software applications that are utilised throughout Front, Middle and Back Office business areas.

Lead Technical Architect

March 2011 to February 2016, [Broadridge Financial Solutions Ltd](#) – London (UK).

- Enhancing current solution [PROactive™ Confirmation Matching](#).
- Architected and developed new solution: [PROactive™ Matching High Frequency Trading](#) to cope with algorithmic trading and HFT (High frequency trading) - 1 Million trades/day. The market leading confirmation matching solution (Treasury Management System) that automates the processing of trade confirmations with unbeatable match rates and exception workflow from the earliest point in the pre-settlement cycle. The new state-of-the-art HFT solution has been in development under my supervision using my architectural solutions over 24 months and implemented in Bank of America New York. This solution works under Windows platform using concurrent modules. This solution has been driven through agile programming methods. Delphi and .Net technologies used over SQLServer.
- Architecting and developing new solution [PROactive™ eMatching](#) for the last 24 months to provide a web portal for internal banking and corporates. This solution uses ASP.NET, MVC, Javascript, CSS, jQuery, SQLServer and other .NET technologies. The project has been under my supervision with a team of 8 developers: 4 in the UK and other 4 in India. The project is live at Commerz Bank, handling thousands of users and thousands of requests per second.
- Executing and developing end-to-end software solutions in agile environment including: requirement analysis, architecture, design, coding, testing, deployment and support.
- Business process knowledge including trade matching, HFT (High frequency trading), settlement and SWIFT.
- Development of scalable systems with architectural requirements for high availability, high throughput and low response time.
- Object Oriented Analysis and Design (OOA/OOD) with appropriate use of design patterns.
- Handling of huge data and processing large amounts of information providing high response systems under SQL Server 2008 R2/2012/14. (Analysis and performance).
- Unit testing with DUnit, code coverage and continuous integration (TeamCity).
- Drove continual improvement to system architecture by refactoring old legacy code.
- Designing systems or components on large projects (design, configuration, coding, testing, implementation and documentation).
- Modelling mathematic algorithms to display performance rates for multi concurrent entities.
- Expert with source control management using TFS, Subversion and GitHub.
- Architecture domain skills (Data, Application, and Infrastructure) using a good understanding of architectural concepts, methodologies and mapping approaches.

- Project management of new products making key technical decisions and guiding and mentoring the team around technical challenges.
- Experience of working with outsourced or offshore partners to deliver software projects.
- Collaborate with other parts of the technology team, including product, QA, etc. to deliver solid product.
- Solid experience (+5 years) in testing methodologies, test-driven design (TDD) and the creation of effective and reliable test cases.
- I understand and advocate the use of the Domain Driven Design (DDD), Inversion of Control, good Object oriented design practices, MVC, Single Responsibility Principle, Gang of Four Design Patterns, Open/Closed Principle, Simplicity of Design, UML, TDD, Code Coverage, BDD and other similar practices that help create solid, maintainable code. (+5 years)
- Conduct code review providing feedback.
- Mentoring/Training people in India to increase their technical ability.
- Travelled to India several times to increase the technical skills of my team.
- Review technical requirements provided by the business for key projects, in order to take concepts from design to delivery. Provide solid software/component level designs supporting technical requirements.
- Bringing teams to a higher level of performance.
- Highly efficient in Agile processes. Agile mindset, being able to establish continuous deployment processes. Breaking down concepts into user stories. Gather data and provide Agile metrics: FTR, sprint burn down, etc. Scrum dashboards, daily/weekly scrum calls with the team. Retrospectives, plan releases, etc.
- Familiar with Continuous Integration (CI), Continuous Deployment and Continuous Delivery and used in several projects across the company.
- Developed automation testing suite for cross-browser testing (Chrome, Firefox, IE and Safari) using Ruby, Watir and BrowserStack.
- Configuring and setting up Build Agents infrastructure to perform Continuous deployment. VMWare machines with WebDeploy and TeamCity.
- Projects to highlight:
 - *Bank of America HFT:*
 - Duration: 18 months
 - Team size: 5
 - New solution to cope with algorithmic trading. Due to the high volumes, the solution had to be redesigned to run in parallel environments.
 - Technologies: Delphi, .NET 4, SQL 2012.
 - Delivered in an agile way, using TDD, DDD, CI and CD.
 - [Commerzbank Live Confirm:](#)
 - Duration: 24 months
 - Team size: 10
 - New web portal solution to give corporates the ability to trade with banks. Hosted solution in our data centre.
 - Technologies: .NET, ASP.NET MVC 5, jQuery, JS, Delphi, SQL 2012, Web services, Web API, SSO using certificates, HTTPS, White labelling, OWASP.
 - Delivered in an agile way, using TDD, DDD, CI and CD.
 - *CreditAgricole FaxMatch:*
 - Duration: 3 months
 - Team size: 5
 - New solution to handle trading via faxes. Handling high volume and large image sizes. Design of the new Archiving process.
 - Technologies: Delphi, .NET 4, SQL 2012.
 - *Mizuho eMatching SSO:*
 - Duration: 3 months
 - Team size: 5
 - New eCommerce portal for their internal banking trading.
 - Technologies: .NET, ASP.NET Webforms, JS, Delphi, SQL 2012, Web services, SSO using certificates, HTTPS, DMZ.
 - *National Australian Bank XML trading:*
 - Duration: 3 months
 - Team size: 5
 - New product to create bespoke trades using XSD and XML. Trades can be displayed in their web solution.

- Technologies: .NET, ASP.NET, Delphi, SQL 2012, Web services.
- *Bank of Tokyo Mitsubishi Interceptor:*
 - Duration: 3 months
 - Team size: 2
 - Built a parser to intercept headers and footers additionally added to the Japanese trading network to build Swift formatted and regulated messages.
 - Technologies: Delphi, SQL 2012.

Senior Software Engineer

August 2007 - March 2011. IT Department, [AEtech](#), Girona (Spain).

- Handled project architecture, conceptual & functional design, development & deployment while keeping in mind the "big picture", making sure that "small details" are properly addressed in the implementation.
- Designed and managed implementation of Company's front-end clients (Win32 with Delphi 2007-XE) and core Application Server modules - infrastructure, data feeds, multithreading data processing and analysis, data manipulation and aggregation.
- Developed internal framework scheduling system solution (AEmes Scheduling) in collaboration with UPC (Polytechnic University of Catalonia) to provide necessary functionality for increasing the productivity in batch factories. The code is exclusively Delphi with widespread use of VCL for the GUI front-end.
- [Design and development of a timing sequencing algorithm for cluster tasks](#)
- Developed internal Open source framework ([Zaluum](#)) for industrial automation based on Java in collaboration with UPC. Setting up the multithreading system on a RTOS (Real time OS) with Ubuntu Server and JVM RT (Real time Java VM).
- Developed [AEmes](#) (Manufacturing Execution System) ERP product server side / client side. Improved AI algorithms to achieve high performance with low latency.
- Developed a library in C# to automate the drawing of schemes in Autocad 2009 using COM and Delphi.
- Full DB integration, design and performance optimization with SQL Server 2000 - 2005 backend.
- Proposed and managed implementation of proper DB versioning and deployment procedures.
- Well proficient in organizing and prioritizing task to accomplish desired results in most efficient way.
- Designed and implemented necessary deployment processes related to applications managed. Developed necessary automated scripts and created and maintained required support documentation.
- Experience with third-party VCL Components (DevExpress), knowledge of Win32 API, TCP/IP Protocols and socket programming.
- Ability to design and develop in OOAD - Object Orientated Analysis / Design (UML, Design Patterns).
- Database experience in SQL. UML (Sequence Diagrams, Class Diagrams, Entity Relationship Diagrams and Deployment Diagrams).

Senior Automation Control Engineer

June 2003 - August 2007. Automation Control Department, [AEtech](#), Girona (Spain).

- Strong technical knowledge in PLC architecture and Programming, HMI/SCADA Programming, DCS Systems.
- Drove commissioning, soft starters commissioning and PID design.
- Technical documentation, monitored work for large customers, support and technical service.
- Provided technical support for production operations including troubleshooting equipment and process problems.
- Actively participated in all the phases of assigned projects including design, fabrication, off-line integration and testing, installation, production start-up support, training of plant personnel and transfer to operations.
- Expertise in a full array of automation technologies including PLC and HMI programming, panel design and system integrations.
- Control software and Electrical hardware troubleshooting.
- Field support for installing/checkout of design and make suggestions for improvements.
- Familiarity with Minitab and statistical process control.

- Improved hundreds of manufacturing processes and products.
- Developed methods, measurements and processes to improve capabilities related to manufacturing.
- Developed new or improved existing product designs to address critical quality requirements.
- Created simulation models for production improvements using Matlab.
- Hands-on knowledge of electrical installation, self-starter, independent and quick learner.
- Data retrieval, plotting and analysis using Microsoft Excel.
- Experienced in a variety of industries including:
 - Water/Waste water treatment.
 - Incinerators plants
 - Manufacturing.
 - Material Handling.
 - Food and beverage.
 - Desalination plants.
 - Pharmaceutical.
 - Nuclear Plants.
- Experienced with MES application development.
- Interested in outstanding engineering feats, industrial automation, robotics, manufacturing and process industries.
- Provided 24x7 on call support.

EDUCATION

2014 - 2019 **Master's Degree in Computer Engineering**. Open University of Catalonia.
 Master's thesis: [Ocular disease intelligent recognition through Deep learning architectures](#).
 Open University of Catalonia.
 Source code: [ocular-disease-intelligent-recognition-deep-learning](#)

2006 - 2014 **Bachelor's Degree in Computer Engineering**. Area of emphasis: Grammars, Compilers, Knowledge representation, Data mining, computerised learning and AI.
 Bachelor's thesis: [Distributed decision making system](#). Open University of Catalonia.
 Source code: [DDM](#)

1999 - 2003 **Bachelor's Degree in Industrial Electronic Engineering**. Area of emphasis: Electronics, Robotics and Industrial Automation.
 Bachelor's thesis: [Monitoring of a remote laboratory via Data Socket](#). University of Girona.

Latest certification and training:

- 2020, Algorithmic Trading & Quantitative Analysis Using Python, Udacity.
- 2020, The Complete Foundation Stock Trading Course, Udacity.
- 2019, I will make you a better C# programmer (SDD Conference). Kathleen Dollard and Bill Wagner.
- 2019, Master Application Deployment and Scaling with Kubernetes and Docker. SkillsMatter.
- 2018, Building Software Architectures (SDD Conference). Neal Ford.
- 2018, ASP.NET Core best practises (SDD Conference). Dino Esposito.
- 2018, Building and testing Angular applications (SDD Conference). Kevin Jones.
- 2017, Mastering ASP.NET Core with Angular 4 (SDD Conference). Chander Dhall.
- 2017, Reactjs from scratch (SDD Conference). Cory House.
- 2017, I will make you a better C# programmer (SDD Conference). Kathleen Dollard.
- 2016, Game Theory. Stanford University.
- 2016, .NET Deep Dive (SDD Conference). Ido Flatow
- 2016, ASP.NET Core 1.0 & MVC 6. Ido Flatow
- 2015, Fundamentals of reverse engineering and security vulnerabilities. Sasha Goldshtein.
- 2015, The essential toolbox for troubleshooting ASP.NET web applications. Ido Flatow.
- 2014, SQL Server 2014 for Developers. Bob Beauchemin.
- 2013, The Elastic Leadership Techniques of the Coaching Architect. Roy Osherove.
- 2013, High Performance SQL Server database modelling. SolidQ.
- 2012, Designing, Optimizing, and Maintaining a Database Administrative Solution for Microsoft SQL Server 2008. Perpetual Solutions.
- 2012, Enterprise Microsoft .NET 4 Framework. QA.
- 2011, Delphi Developer Certification - Embarcadero.
- 2011, Advanced English Course at EOI (Official School of Languages) Girona.

- 2011, Introducing Financial Markets. GoodAcre.
- 2010, CAE (Certificate in Advanced English) C1 CEFR Level – *University of Cambridge*.
- 2009, FCE (First Certificate in English) B2 CEFR Level – *University of Cambridge*.
- 2009, Certificate in pragmatic thinking and learning by Andy Hunt. *Skills Matters*.

OPEN SOURCE PROJECTS

- [Atom Table Monitor](#)
- [Thundax P-Zaggy](#)
- [Thundax Delphi Physics Engine](#)
- [Flickr Photo Stats](#)

PERSONAL DETAILS

- **Nationality:** Spanish with ILR.
- **Languages:** Spanish (Native), Catalan (Native), English (Fluent), Portuguese (Basic).
- **Interests:** Programming and Photography.
- **Awards:** [Embarcadero MVP](#).
- **Blog:** [Random thoughts on coding and technology](#).
- **GitHub:** <https://github.com/JordiCorbilla>

REFERENCES – Available on request.