Curriculum Vitae
of
Johan Steyn

Address   7 The Orchard
Bushfield Avenue
Donnybrook
Dublin
D04 E5W6
Republic of Ireland
Mobile   +353 83 845 2773
Email   johan.steyn@gmail.com
Website   johansteyn.eu
(Download CV as PDF)

Employment

Aug 2021 – present	**MongoDB**	Senior Software Engineer
Jan 2020 – Jun 2021	**Jet Engineering**	Senior Software Engineer
Jan 2019 – Dec 2019	**Bank of America**	Scala Contractor
Feb 2007 – Dec 2018	**Oracle**	Principal Software Engineer
Apr 2001 – Jan 2007	**Sun Microsystems**	Software Engineer
Apr 2000 – Feb 2001	**TradeRoot Technologies**	Software Engineer
Mar 1999 – Mar 2000	**NCrypt Systems**	Software Engineer
Nov 1995 – Feb 1999	**TranSwitch Services**	Software Engineer
Jan 1993 – Sep 1995	**Denel Informatics**	Senior Programmer
Aug 1989 – Jan 1991	**Sasol**	Electronic Technician
Aug 1987 – Jun 1989	**South African Air Force**	Trainee Technician

Education

2005	**University of South Africa**	BA (Bachelor of Arts) in Spanish and Geography
1992	**University of Cape Town**	BSc (Bachelor of Science) in Computer Science
1989	**Pretoria Technikon**	National Diploma in Electrical Engineering
1985	**Montana High School**	National Senior Certificate

Training

2009	Oracle	Assertive Communication
2009	Oracle	Influencing Skills
2006	Sun Microsystems	Dynamic Performance Tuning & Troubleshooting with Dtrace
2003	Sun Microsystems	Advanced Perl Programming
2003	Sun Microsystems	Basic Perl Programming
1996	Sybase (SA)	Introduction to SQL & Fast track to Sybase
1995	Apollo Training	NeXTSTEP Programming
1994	Apollo Training	Unix Systems Administration
1994	Apollo Training	Unix Bourne Shell Programming
1994	Infoplan	Unix Fundamentals
1994	Infoplan	Unix Awareness
1993	Incus Data	C++ Programming
1993	Incus Data	Advanced C Programming
1990	Sasol	Team Oriented Problem Solving

Certifications

2019	**Parallel Programming**
2019	**Functional Programming Design in Scala**
2019	**Functional Programming Principles in Scala**
2006	Diploma de Español como Lengua Extranjera (Nivel inicial)
2006	Sun Certified Programmer for the Java 2 Platform, Standard Edition 5.0
2005	First Aid Certificate
2001	**BrainBench** Master Certification in Java 1 (Public ID: 2267068)
1998	Sun Certified Programmer for the Java Platform (JDK1.1)

Skills

Having started my career in electronic engineering, I soon switched to software engineering where I acquired programming skills across 3 broad areas:

1. **Native systems programming**: I started using C at University in 1991 and used it almost exclusively early in my career. I have worked on systems written entirely in C, and on systems that combine Java with native C libraries via the Java Native Interface (JNI).
2. **Cross-platform development**: I started learning Java in 1995 and have been using it continuously since 1996. I have trained new Java developers and taken part in the development of the Java platform itself at Sun Microsystems. It is the programming language that I have the most experience with, though I have taken an interest in newer languages that run on the JVM, most notably Scala. My latest language interest, though, is the Go programming language (Golang).
3. **Scripting**: While not my primary focus, I do most of my simple shell scripting in Bash and have used some Perl and Python for larger tasks.

Development Platform

I prefer developing on Linux (Ubuntu) or MacOS where I am most comfortable using command-line tools.

Programming	Extensive initial C experience (with some C++ and Objective-C) moving to Java then Scala, and now focusing on Golang
Scripting	Regular Bash scripting and limited Python experience
Command-line tools	Everyday experience using find, grep, vim, etc. with Regular Expressions
IDEs	JetBrains IntelliJ
Build tools	Make, Autotools, Ant, Maven and Bazel
Version control	RCS, SCCS & Teamware, CVS, Subversion and Git
CI/CD	Cruise Control, Jenkins and in-house systems

Java

My initial Java programming work centered around building multi-threaded, server-side network applications. I also developed client-side implementations of FTP and SMTP as well as a number of GUI applications using AWT and Swing. As part of the Java engineering team at Sun I gained valuable low-level, in-depth experience in Java. At Oracle I progressed towards developing web applications in Java, taking a translation source language checker from prototype to production, then writing Java data extractors for large language translation framework, before moving on to backend web/micro-services in Java. At Bank of America I worked on a large ETL system written in Java while my work at Jet Engineering involved resilience and instrumentation in Java applications.

Networks	Extensive experience using TCP, UDP and serial ports. Wrote Ftp and Smtp client-side implementations. Worked on large communication event frameworks.
Input/Output	Extensive experience with I/O streams, including developing custom streams.
Databases	Developed systems using JDBC to interface to Sybase and Oracle databases.
Distributed systems	Researched and prototyped systems using RMI, CORBA and Sockets. Used serialization to package and send objects to remote machines. Studied XML and used DOM and SAX parsers. Wrote custom classloaders. Worked with Grid Engine and in-house distributed processing systems. Built Docker containers and deployed under Marathon and Mesos.
Security	Studied the Java security model. Developed an SSL implementation from scratch.
Java Native Interface	Used JNI on various projects at Sun Microsystems.
Graphical User interfaces	Extensive experience building applications with both AWT and Swing. Wrote software to display and print barcodes. Worked on porting AWT to various native toolkits.
Web applications	Built web applications using JSF, then started learning Oracle JET.
Web services	Built web services in Java using plain Servlets as well as Jersey, getting familiar with JSON in the process. Designed Microservices with Swagger Editor and implemented them using Hibernate on the backend and tested using Postman.
Resilience	Add circuit-breakers to a large Java system for higher throughput.
Instrumentation	Export system, JVM and application metrics from Java applications in Prometheus format, to be displayed in Grafana.

Scala

A few years ago I started shifting my career focus towards the Scala programming language and getting familiar with Reactive architecture as per the **Reactive Manifesto**. My Scala experience so far has been develping Spark applications on large datasets to generate reconciliation reports (**Bank of America**) and to copy real-time and batch on-premise data to the public cloud (**Jet Engineering**).

Golang

Having worked in the Java ecosystem most of my career, the language that grabbed my attention away from the JVM was the Go programming language, which I started using to develop command-line utilities that interface with web service API endpoints (**MongoDB**). I am drawn towards the simplicity and pragmatism of the language and I am enthusiastic about making Golang the primary focus for my career ahead.

Career

MongoDB (August 2021 - present)

I joined MongoDB to work on the Java backend of their Ops Manager platform, where I have been involved with the alerts system, modularization of the code base using Bazel, third party library upgrades, and dealing with customer-facing issues on the regular help rota.

I also led a project from start to finish on their `mongocli` product, where I got my first experience of programming in Go. This required me to take an existing product description document to write a scope document, followed by a specification document and then implementing the specification with two other engineers on the team. It also necessitated reaching out to other engineers across teams to get their input along the way.

Jet Engineering (January 2020 - June 2021)

I joined the Merchant Intelligence (MINT)team at Jet Engineering, which had recently been acquired by Walmart.

The MINT team does backend work gathering data about competitor retail prices in order to provide fresh information to decision makers in the Pricing team.

The areas I worked on include:

- Copying large amounts of real-time and batch data from on-premise infrastructure to the cloud
- Adding instrumentation metrics in order to monitor the throughput of systems
- Making real-time systems more resilient by incorporating circuit-breakers

The technologies and tools I worked with include:

- Spark, Kafka, Cassandra, Hadoop and Hive for big data
- Git, Jenkins and various in-house tools for CI/CD
- Prometheus and Grafana for instrumentation/metrics

Bank of America Merill Lynch (January 2019 - December 2019)

I joined the Brexit team in the Reference Data department as a Scala contractor to help develop data quality reports related to the financial regulatory requirements that would come into play once the UK leaves the EU.

This involved getting familiar with "big data" that is "sqoop'd" daily from various sources in the bank, into "triplet" data structures (subject-predicate-object) that can be queried using Apache HiveQL, and then writing Scala code to implement batch queries to be run on Spark, via an in-house Scala library.

Having delivered all required reports by the original Brexit Day (29 March), I was assigned to a team working on a large system that processes and stores Vendor feed data in a more traditional architecture, based on Oracle databases and Java.

Oracle (February 2007 - December 2018)

I joined the Worldwide Product Translation Group at Oracle in February 2007 as Principal Engineer, where I was placed in a team lead role.

My initial responsibility was to introduce the engineering team to modern tools for version control and build systems. More specifically, I moved the existing systems from Visual SourceSafe to Subversion, from Ant to Maven, and introduced continuous build systems such as Cruise Control and, later, Jenkins.

My first development project was to take an early research prototype of a lint-like translation analysis tool and bring it up to production quality by refactoring the source code and bringing it more in line with actual customer requirements.

I took the lead for the development of a customer portal, consisting of web and GUI front-ends for various translation tools, guiding and mentoring other programmers, taking responsibility for the project schedule, involving estimates, planning, liaising with the Quality Assurance team and internal stakeholders for user acceptance testing.

I also contributed to the development of a comprehensive terminology management system, programming some key features such as user authentication using Oracle Single Sign-on, and importing and exporting terms from and to spreadsheets.

I then worked on an advanced pseudo-translation tool for the customer portal, and the backend architecture to make it scale across machines in a cluster using in-house developed technologies and Grid Engine.

My focus shifted towards the core translation platform when I developed SGML- and XML-based parsers to migrate translation content to our in-house system after Oracle acquired Sun Microsystems.

During my last few years at Oracle I was mostly involved in developing web services around the translation workflow, as well migrating a monolithic, enterprise web service to a more microservices-based architecture.

The last project I worked on centered on developing microservices for backend Machine Learning in the field of Machine Translation, evaluating engines in terms of performance and quality of results. The microservices were deployed as Docker containers and scaled using Marathon with Mesos on the backend. I also migrated our microservices source code from Subversion to Git.

Sun Microsystems (April 2001 - January 2007)

During almost 6 years at Sun Microsystems in Ireland I worked on the Java platform, the Desktop group and the Sun Ray team.

Java

In April 2001 I joined the software engineering team that developed the reference implementations for **Personal Profile** and **Personal Basis Profile** for J2ME on Linux.

I did an in-depth study of Secure Sockets Layer (SSL/TLS) and developed a proof-of-concept client-side implementation to provide HTTPS support for J2ME Personal Profile. This also involved getting familiar with the Java 2 security model, including interoperability with the Java Secure Sockets Extension (JSSE) and the Java Cryptography Extension (JCE).

I familiarised myself with the build system (Make) and source code version control system (SCCS with Teamware), contributing to the maintenance of the makefiles, creating and merging workspaces, taking responsibility for the nightly and weekly bring-overs between the Europe and US offices and ensuring that the nightly builds succeeded.

I developed and maintained a suite of automated performance benchmark tests to ensure that we met the required memory/speed limitations of the target platform and to detect any performance regressions early. I also assisted our technical writer with the programmer's guides, for which I developed a suite of demonstration programs to illustrate a wide range of our product features.

I was responsible for ensuring that all our source code contained the appropriate copyright notices and licenses, that all Java code was indented according to the Sun coding guidelines, and that all code was "scrubbed" to detect any inappropriate language before release.

Java Desktop System

In 2004 I was offered a position in Sun's Desktop group that was responsible for the **GNOME**-based Java Desktop System (JDS) on both Solaris and Linux.

My initial development projects involved mostly Java programming: I did some Servlet development for the JDS patch system whereby customers could perform online updates of their JDS Linux installations. Then I developed a GUI-based product registration application for JDS, ensuring that it was internationalised and complied with export regulations.

Thereafter I became more involved in GNOME development, writing a gnome-vfs module for Network Places, and patching the Nautilus file manager to use it.

We used CVS for source code control and Make with Autotools to build applications. I learned the package management system, wrote RPM spec files to build RPM's and used Diff to create patches. I became involved in a project to investigate various Debian-based Linux systems, documenting the install procedures, as well as comparing the Debian package management tools with RPM's, and documenting how they would fit into the JDS patch system.

I evaluated Wiki systems so that our group could create and share documentation in a collaborative way. We settled on **TWiki**, which I installed, configured and administered for the group.

Thereafter I was involved in designing and running network bandwidth performance tests to measure the size and speed of network traffic between Sun Ray servers and clients when running JDS. This involved collecting metrics using the command-line tcpdump utility while performing specified, repetitive user-interface tasks, and displaying the results graphically.

Sun Ray

In 2005 I joined the **Sun Ray** team where I initially investigated Canary: a web-based tool used internally at Sun to monitor the overall performance of any number of server and client machines on a network, especially where many Sun Ray clients are deployed, providing statistics and an early warning facility for operations managers and systems administrators.

Thereafter I became involved in developing web applications in Java, specifically to develop a new web-based user interface for Sun Ray servers, running on Apache's Tomcat server. This involved working with Servlets, Java Server Pages (JSP) and Java Server Faces (JSF) technologies on the server, and HTML with Cascaded Stylesheets (CSS) and JavaScript on the client. I made extensive use of the Java Native Interface (JNI) to access native C libraries. I started using Subversion in place of CVS for source code control, and Ant in place of Make to build the product.

TradeRoot Technologies (April 2000 - February 2001)

In April 2000 I joined Inference Technologies, which has since become part of **TradeRoot**.

I worked as a Java developer on a framework for building electronic commerce systems that integrate proprietary payment protocols with the ISO8583 EFT protocol. The work involved extensive use of Java threads and network communications using TCP, UDP and serial ports. I worked on Java code to interface with various hardware devices such us Schlumberger PIN pads, FastNet radio pads to connect to a wireless X.25 network, and Pandora ether pads to communicate with serial devices on a LAN. I also did user interface programming in Swing and used XML to a limited degree.

In addition to Java development, I was responsible for version control and the build system, and I ensured that all our source code complied with the Java coding standards as specified by Sun Microsystems.

NCrypt Systems (March 1999 - March 2000)

In March 1999 I joined NCrypt Systems, a startup company in the field of computer data security.

I was involved in research and development work on distributed object technology in Java involving CORBA, RMI, object serialization, sockets and custom classloaders. I also undertook the task of training and mentoring a team of new graduate developers, and in the process I developed an in-house Java training course, which covers the fundamentals of the Java programming language.

TranSwitch Services (November 1995 - February 1999)

In 1995 I joined TranSwitch Services, a joint startup venture between retail giant **Pick 'n Pay**, South Africa's largest bank **ABSA** and **Mosaic Software** that grew out of PayNet, the pioneers in retail electronic funds transfer (EFT) in South Africa.

I was responsible for the architecture, design and implementation of the **EasyPay** system. Much of the work I did involved "data-crunching": parsing and generating data in various formats, such as COBOL-style fixed length file formats, comma-separated ASCII text files and EDIFACT files, and storing the processed data in a database. I also ensured that files were received and delivered by various means: X.25, FTP, email, hand delivery of magnetic tapes, etc.

I dealt with a variety of clients and vendors of point-of-sale and billing systems, with whom I discussed and agreed upon file exchange formats and infrastructure, set up test cycles and coordinated their inclusion into the production system. The EasyPay system went live on 1 June 1997 and processed more than 6 million payments in the first 18 months.

In addition to the core EasyPay system, which had to be done in C, I developed some peripheral utilities in Java to assist the operators and administration staff. This exposed me to network programming with TCP/IP sockets, implementing FTP and SMTP functionality in standalone client GUI applications and accessing databases using JDBC. A also wrote a Java applet to generate and print Barcodes.

In 1998 I started teaching Java beginner classes in the evenings at KryptoPlus, a startup training company in my local neighbourhood.

Denel Informatics (January 1993 - September 1995)

In 1993 I started working for Denel Informatics as a junior C programmer on a store-and-forward routed messaging system.

This exposed me to a wide variety of technologies as the system had to run on a range of operating systems (MVS, Unix, OS/2, WindowsNT, DOS), interface with different databases (IDMS, DB2, Sybase, Oracle, C-Tree, Paradox) and use various methods of file transfer (XCOM, TCP/IP, Floppy). In less than 3 years I had worked myself up from Junior to Senior Programmer in the team.

In 1995 I joined the company's Object Oriented products team, who were the official distributors of NeXTSTEP in South Africa. I learned to program in Objective-C and used tools such as InterfaceBuilder on the NeXTSTEP platform, now the core operating system and development platform on Apple computers.

University of Cape Town (1991 - 1992)

Having completed the first year of a BSc part-time, Denel Informatics granted me a scholarship to complete my BSc full-time at the **University of Cape Town**:

First Year	Second Year	Third Year
Computer Science	Computer Science	Computer Science
Mathematics	Mathematics	Astronomy
Economics	Applied Mathematics	Logic
Business Economics	Statistics	

Being an academic institution, the focus was more on computer science theory than programming. However, in order to apply the theoretical knowledge obtained, the university chose Unix and C for all practical programming projects. My first major C programming project was a course scheduling system, for which I obtained 93%. Other projects, for which I achieved an average mark of over 80%, included implementing data structure algorithms, such as linked lists and height/weight balanced binary trees, writing a database relational algebra optimizer, and implementing scheduling and memory management modules for a virtual operating system project.

The computer science courses consisted of modules in:

- Theoretical Computer Science
- Computer Architecture
- Data Structures and the Efficiency of Algorithms
- Systems Design
- Software Engineering
- Comparison of Computer Languages
- Operating Systems
- Graphics
- Databases
- Networks

Sasol (Aug 1989 - Jan 1991)

I joined **Sasol** as an electronics technician in 1989.

I was part of a team that worked on Honeywell TDC4500 mainframe computers monitoring the Sasol 2 & 3 petro-chemical plants. I gained experience in fault diagnosis and the repair of central mainframe computers and peripheral devices, such as hard disk drives, colour display units, printers, networks and much more. During that period I took an interest in software development and studied part-time towards a BSc in computer science at the **University of South Africa**.

South African Air Force (Aug 1987 - Jun 1989)

During 2 years of compulsory National Service I was assigned to the Research and Development department of 4 Air Depot in the South African Air Force.

I was responsible for the layout and manufacture of printed circuit boards. I also designed and built various electronic devices, such as power supplies and various discrete digital circuits. During this time I gained experience in project estimates using Gant charts and status reporting. The work I did satisfied the requirements for the practical part of my Electrical Engineering Diploma, which I received in 1989.

Pretoria Technikon (1986 - 1987)

After school I studied Electrical Engineering at the Pretoria Technikon, now called the **Tshwane University of Technology**, where I completed the theoretical part of the National Diploma in Electrical Engineering with the following subjects:

First Semester	Second Semester	Third semester
Electronics *	Electronics	Electronics
Digital Systems *	Digital Systems	Digital Systems
Engineering Mathematics *	Engineering Mathematics *	Engineering Mathematics *
Industrial Instruments	Industrial Instruments	Industrial Instruments
Electrical Engineering *	Electrical Engineering	Automatic Control
Communication	Programming	Television

* Distinction (above 80%)

Montana High School (1983 - 1985)

I attended **Montana High School** until 1985, obtaining my **National Senior Certificate** with full university exepemtion and all my subjects on higher grade:

Subject	Grade	Mark
English	Higher	**B** (71-80%)
Afrikaans	Higher	**C** (61-70%)
Maths	Higher	**B** (71-80%)
Science	Higher	**C** (61-70%)
Accounting	Higher	**B** (71-80%)
Economics	Higher	**D** (51-60%)

Further Education

I started learning Spanish with the intention of backpacking around Latin America one day. I enjoyed it so much that I decided to enrol for the Spanish Special course at the **University of South Africa**. I ended up registering for a full BA degree, majoring in Spanish and Geography. I chose Geography as my second major because I take an interest in environmental issues and I plan to build a sustainable, eco-friendly home running off solar and wind power. I was awarded a Bachelor of Arts degree after having passed the following papers:

First Year
SSP100-D	Spanish special
GGH101-Q	Know your world: introduction to geography
GGH102-R	World issues: a geographical perspective
ECN100-F	Economics
PHL100-B	Philosophy
PSY100-X	Psychology

Second Year
SPN211-R	Spanish
SPN212-S	Spanish
GGH201-T	The African challenge: people and environment
GGH202-U	The geography of basic services provision
GGH203-V	The interpretation of maps, aerial photos and satellite images
GGH204-W	People and the natural environment: use and impact
GGH205-X	Environmental Politics
PSY211-8	Psychology
PSY212-9	Psychology
LOG201-5	Logic
LOG202-6	Logic

Third Year
SPS301-H	Spanish for translation
SPS302-J	Spanish for oral communication
SPS303-K	Spanish for professional purposes
SPS304-L	Encounters with Spanish American culture and literature
SPS305-M	Reading and analysing texts in Spanish
GGH301-W	State of the people and environment in Southern Africa
GGH302-X	Spatial economic development
GGH303-Y	Introduction to geographical information systems (GIS)
GGH304-3	Development of urban space
GGH305-4	Environmental evaluation and impact assessment

I also completed the following modules at the **University of South Africa** as part of a BCom (Bachelor of Commerce) in Quantitative Management in order to complement my technical software engineering skills with some business and management skills:

ECS1016	Economics	Economics 1A
ECS1028	Economics	Economics 1B
MNB101D	Business Management	Business management 1A
MNB102E	Business Management	Business management 1B
INM1013	Introduction to the economic and management environment 1A	
INM1024	Introduction to the economic and management environment 1B	
ACN101M	Accounting	Accounting concepts, principles and procedures
ACN102N	Accounting	Accounting reporting
DSC1620	Quantitative Management	Mathematical modelling I
DSC1630	Quantitative Management	Introductory financial mathematics
STA1501	Statistics	Descriptive statistics and probability
EHY201W	Economic History	Economic History of the World 2
ECS201A	Economics	Microeconomics 2
ECS202B	Economics	Macroeconomics 2

Personal

Societies, Clubs and Organizations

As a child I was a member of the stamp and chess clubs at school, as well as youth organizations such as the Boys Brigade and Sea Cadets.

When I worked at SASOL I was a member of the Secunda Hiking club, where I regularly took part in weekend hikes, led a few hikes and served on the committee.

At University I belonged to the Mountain and Ski club, regularly partaking in hiking activities, social gatherings and contributing to the annual club magazine.

While working in Cape Town I attended some meetings of the Cape Town Linux User Group, and was involved in setting up a Cape Town Java User Group.

In 2005 I took a supervised IQ test and, having passed the entrance requirements, was invited to join the British/Irish Mensa Society.

In the pre-COVID years I was an active member of the Dublin Argentinian Tango Society, and I DJ'd at tango events in Dublin, across Ireland and Europe and even further afield.

Interests, Sports and Hobbies

Hiking, Camping and Travelling - I backpacked, hiked and travelled around Southern African countries as a solo traveller in my youth. More recently my young son and I have done various outdoor adventures:

- Travelled to remote deserts in Africa
- Photographed ice caves and the Aurora Borealis in Iceland.
- Hiked and fished trout in Yosemite Valley
- Hiked along the highest sea cliffs in Europe and to the summit of Ireland's highest mountain.
- Walked the entire 830km Northern "Camino de Santiago" in Spain over 37 days in July 2018.
- Cycled over 2000km around Ireland during the summers of 2020 and 2021.

Running, Cycling & Rollerblading - I started running in 1996, and have since run a few marathons and the Two Oceans ultra-marathon. In 1998 I did the 105km Argus cycle tour on my mountain bike. Since living in Ireland my sporting activities have been limited to roller-blading and cycling, though I did manage to finish the 2004 Dublin Marathon

Watersport - When in South Africa, I take to the sea with my bodyboard and wave-ski. In 1995 I did the NAUI Open Water I scuba diving course, completing my qualifying dives at Sodwana off the South African east coast. I dived at Knysna to see the Knysna Sea Horse, among Ragged Tooth sharks at Shark's Gulley near Port Alfred. More recently I have snorkeled in the Red Sea with my son, and we completed the PADI Open Water Diver scuba certification.

Gardening - I am the most relaxed in the outdoors when gardening. Whenever I return to South Africa on holiday, I continue work on establishing an indigenous garden in Betty's Bay near Cape Town.

Tango - I started taking Argentinian Tango dance lessons in 2008, and have subsequently developed a strong love for the dance, the music and Argentinian culture. In order to improve my dancing further, I have collected and listened to tango music extensively as I build a reputation as Tango DJ at milongas and tango festivals all over Ireland, Europe and further abroad. I have visited various cities to dance and DJ: Prague, Barcelona, Edinburgh, London, Berlin, Amsterdam, Moscow as well as Buenos Aires.

Music - With my passion for Tango I picked up my clarinet again to play some of the classic old Tango music. I selected a few of my favourite songs and started using the Open Source MuseScore to transfer sheet music and arrange and transpose it for clarinet. I play the pieces with musician friends in Dublin and with community tango orchestras in other European cities when I travel to festivals.

Photography - I chose the Olympus Micro Four Thirds camera system, which I have used to photograph some of my travels and tango dance events.

Petanque - Since COVID has curtailed my Tango activities, I have taken up the pasttime of "French Boules", also known as "Petanque", which I am able practise in a social distancing manner in Dublin parks.

Reading

I have an extensive collection of O'Reilly technical books, and I often read about the culture, philosophy and ideas of the Free and Open Source Software movements. Occasionally I enjoy reading books and essays on how we build and manage software projects and people. Though I regard these books as insightful, I do not see them necessarily as "silver bullets", but rather as complementary to good, solid technical skills.

As part of my Spanish studies, I have read a number of Spanish books, short stories and essays by authors such as Gabriel Garcia Marquez, Garcia Lorca and others.