

Justin Crosbie: Curriculum Vitae

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Summary

Highly experienced full-stack Software Architect and Developer, Product Owner, Technical Team Leader. Scholarship winning Masters-level academic education.

Enjoys developing Angular, React, Xamarin, Flutter, NodeJS, Firebase in my free time to prototype start-up ideas, as well as continually learning.

Loves working with start-ups, discovering value and opportunity, building viable business from scratch. iOS Developer Program paid subscriber.

Core Skills

		Years Experience	Year Last Used	Skill Level				
				High 5 → Low 1				
				5	4	3	2	1
General Experience								
	Product Owner	3	2024	✓				
	Software Architecture	20	2024	✓				
	Agile Methodologies	12	2023	✓				
	Research & Development	20	2024	✓				
	Team Management	12	2023	✓				
	Project Management	12	2023	✓				
	Software Development	30	2024	✓				
Programming Languages and Frameworks								
	Java/Spring/Spring Boot	22	2023	✓				
	rust	2	2024		✓			
	NodeJS/NestJS	10	2024	✓				
	React, React Native, Next.JS, Tailwind CSS	4	2024	✓				
	Angular (15)	11	2023	✓				
	Flutter	2	2024			✓		
	LLMs, LangChain, tensorflow, keras, RAG	2	2024			✓		
	Solidity, web3.js, MetaMask	1	2024			✓		
	Swift, Objective-C (iOS)	3	2024		✓			

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	Python	3	2024		✓				
	Android (Java, Kotlin)	3	2024		✓				
	Front-end - HTML5, CSS3, JavaScript, Typescript	15	2023	✓					
	Xamarin/C#	4	2022		✓				
	Databases, Oracle, Postgres, MongoDB, PL/SQL	22	2023	✓					
	Java ORM – Hibernate, JPA, EJB3	5	2022	✓					
	Web Frameworks - Express.JS, NgRX, Redux, Ionic, Gatsby	12	2023	✓					
	OAuth/OpenID, SAML, PingIdentity, Keycloak, Auth0, Okta, LDAP, AD	9	2023	✓					
	Visualforce Apex, SOQL	4	2015	✓					
Software / Technologies									
	Cloud environments – mostly AWS, but also GCP and Azure	10	2023	✓					
	IDEs – IntelliJ, Visual Studio Code, Xcode, Android Studio	10	2023	✓					
	Documentation – Confluence, Figma, Adobe XD, readme.io, draw.io	10	2023		✓				
	Databases – Postgres, Oracle, SQLServer, MySQL, MongoDB	12	2023	✓					
	TDD – JUnit, RestAssured, Protractor, Jasmine, Playwright	12	2022	✓					
	Version Control -Bitbucket, Git	15	2023	✓					
	Build Automation (Gradle, Maven, Ant)	15	2023	✓					
	Continuous Integration (Bamboo, Jenkins)	15	2023	✓					
	Requirements and Issue Tracking – JIRA, ZenDesk	12	2023	✓					
	O/S – Linux, Windows, OSX. Shell scripting, perl, sed, awk, regular expressions	25	2022	✓					

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EMPLOYMENT

December 2023 to present: Freelance Consultant

Position: Tech Lead/Senior Engineer,

I am currently working for a couple of clients, covering a wide range of technologies, including rust, Java Spring Boot, React, Next.JS, Angular, rust WASM with wasm-bindgen, as well as working with the ChatGPT APIs, OpenCV/tensorflow/python, AWS services including Rekognition, Amplify, Lambda, Elastic Beanstalk

R2 Labs Pty Ltd

I shipped several projects for the client, including:

AAV - an Anonymous Age Verification service for restricted sites, to protect children online. Live at aav-service.com

OAuth Delegation – to provide Power-of-Attorney functionality to OAuth login

Wallet Nation – an escrow service for Crypto transactions

HSG2 Pty Ltd (Was Haventec)

I provided support to their customers, for their Haventec authentication product, see below. Involved shipping feature requests, issue troubleshooting and liaising with the customers.

Entrepreneurial work

I have been busy in my free time building online services, including:

Passkeyme.com – a SaaS platform that provides Passkey authentication, suitable for app developers to integrate into their apps. Developed autonomously, in rust and React, with SDKs in JavaScript, iOS and Android, Flutter, and React Native, using Stripe payments. Fully released, in Beta.

Choons – a music app that auto-curates and rates and ranks music to detect high quality tracks. Built in Flutter and rust, with designs in Figma. Also working on patenting the idea. Coming soon!

A chatbot based on an LLM that you can upload your docs to and query, based on RAG with a vector database

A music video creation service that provides storyboarding to generate sequenced videos, based on stable diffusion - Currently researching.

A service that performs sentiment analysis on social media posts to detect bots, trolls and other undesirable posters. Built with Next.JS, Material Tailwind and rust backend – prototype released.

June 2023 to December 2023: ubank Pty Ltd - Contract

Position: Tech Lead

ubank was a client of Haventec, so post-Haventec, I was hired to implement their migration to an MFA/Passkey-based authentication solution using PingIdentity. I was managing and executing procurement, technology selection, and software development around Node, NestJS, Angular Ionic, NgRX, Capacitor plugin development across JavaScript, iOS and Android

August 2015 to June 2023: Haventec Pty Ltd - Permanent

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Position: Full Stack Developer, Frontend Architect, Tech Lead, Team Lead, Product Owner, Customer/Stakeholder Management, Sustainability Lead

Haventec is a cybersecurity startup, where we developed a unique strong authentication paradigm.

My roles were to deliver the product based on customer requirements. This involved many roles, at multiple levels. Initially I was a core developer, responsible for the architecture, Agile development and deployment processes, testing methodologies. My role evolved to managing a team of 10 developers, UX designer, tech writer, along with sales and customer stakeholders, acting as Product Manager/Owner, Scrum Master, UX/Frontend Architect, where the team delivered on my vision for the product, following disciplined Agile practices, to deliver on time for our customers. I was also responsible for organising standups, sprint planning, backlog grooming, showcases, release management, as well as customer and stakeholder liaising.

I am also part of the Innovation team, where I conceived a unique authentication paradigm based around Self-Sovereign Identity and Verifiable Credentials that we are attempting to sell into Service NSW

Currently involved in revamping our release train automation, to ensure greater predictability and transparency around customer deliverables.

The product was a suite of docker microservices deployed into AWS, that provided REST APIs with OpenID flows. Code was developed in Java SpringBoot backend, Postgres DB, Angular with NgRX frontend, Keycloak IAM, with SDKs and demo apps for Swift, Android, Flutter, React, Angular, JavaScript, utilising cryptographic libraries.

August 2020 to 2022: Occasional Freelancer with gigl.com.au, mainly during Covid times

Position: Angular/Ionic Developer

Angular and Firebase application, I was the main developer of the PWA and also worked on the Ionic mobile app

June 2015 to August 2015: Freelancer with Bluebridge Technologies Position:

iOS Developer

Developed a medical app to assist junior doctors with certain emergency situations, to reduce escalations to consultants. Development was in Objective-C and published to the Apple App store. Involved a lot of intricate transitions and animations to be developed in iOS.

December 2014 to present: Entrepreneurial Development

Position: CTO, Director, and Android and iOS Developer

The company was formed with 2 others, who have contacts to the industry, to develop a native app that uses mobile technology to improve safety for the nightclub and pub industry.

Developed an app in Xamarin that is published to the Apple and Play Stores called Secure Venue, that uses the Camera APIs, push notifications, Maps, uploading images to Amazon S3, and persisting to a Node.JS/MongoDB based MEAN webapp running on AWS Lambda via Serverless.

Also involves duties as company director and CTO, involving monthly board meetings, decision making, procurement of finances and investment, and patenting of the technology.

July 2015: Freelancer with SINDesign Position:

Web Developer

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Integral part of an Agile team that developed the web interface to their JourneyTree learning platform. Development was in Angular, Ionic, HTML5, CSS. Also provided assistance with their git branching strategy, as well as advice on improving their JIRA usage and story creation.

February 2014 to April 2015: Contractor with Trinsic.co

Position: Developer

Development of solutions for clients based around Salesforce backend with jQuery/HTML/CSS front-ends. Notable projects have involved Salesforce integration with Amazon S3, Embed.ly, jQuery File Upload.

Also developed a hybrid mobile app for scheduling Hair and Beauty appointments. The app was developed using the MEAN stack with the Ionic framework.

November 2010 to August 2013: The TAS Group., Dublin, Ireland

Position: Senior Developer/Build Architect

The TAS Group provide a SaaS based Sales management and training solution based on a Salesforce Native Application, which originally was a J2EE web application.

I was part of a team of highly skilled developers who maintain the product, and develop incremental new features. Development was highly Test-Driven and Agile based, managed with JIRA, with 2 week iterations. My notable projects include:

- Part of the team that transitioned the product to a complete cloud-based Salesforce plugin, developing in Visualforce Pages, Apex, SOQL, and front-ends in Functional JavaScript, jQuery, HTML5, CSS3.
- Re-architected the build/CI system to bring it up to date with Maven, Jenkins, Nexus, replacing the old Ant and homegrown-based system that required a lot of maintenance.
- Implemented SAML with digital signing into the product.
- Implemented Localisation into the product

Key technologies used are Java, Spring, Struts, Functional JavaScript, jQuery, HTML5, CSS3, Maven, Jenkins, JUnit, EasyMock, Selenium.

November 2008 to November 2010: Arantech Ltd., Dublin, Ireland Position:

Internal Frameworks Architect/Technical Lead/Senior Developer Arantech provide CEM software for the Telecoms industry.

My role was to manage change, team lead, and architect and develop improvements to development, QA and delivery processes that streamline release cycles, via agile methodologies, including a QA automation framework (developed around QFTest, TestNG, XSDs, Maven, Spring 3, Hudson) and a requirements management repository (developed in Grails and Flex), and several productivity tools developed in Swing. I was also engaged in providing estimations, schedule, develop, liaise with management and other departments and project manage customer release deliverables, and ensure best practices are employed at all stages, as well as interviewing and training new technical staff. Development is based around a suite of J2EE applications, involving Java, EJB, Swing, Spring, Python/Jython, XML/XSL, Oracle, Business Objects, JasperReports.

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I was also a senior developer on a recent product based upon Flex 3, Spring 2.5, Hibernate 3.5, GraniteDS, Maven, JUnit, Continuum, which was released to several existing clients. Development process is agile/scrum with 2 week iterations.

During my time in Arantech I have gained experience in 2G, 3G, Voice, Data and IP-based mobile Telecoms technologies, over A, Gb, IuCS, IuPS, Gn/Gi/GTP protocols. Products were developed to index over IMSI, IMEI, APN, SGSN/GGSN, SPC, SMSC variables.

May 2001 to November 2008: Amateo Ltd., Dublin, Ireland

Position: Project Manager/Technical Architect/Team Leader (Contract for 6 months, then Permanent).

Amateo provide CRM and BI software and services for the Hospitality industry.

I was responsible for the architecture, design, development and delivery of a suite of web-based CRM applications geared toward marketing for the hospitality industry, including a Campaign Manager, Sales Force Automation, several Loyalty schemes, and some administration applications. The applications were developed using EJB, J2EE, PL/SQL, Struts, Hibernate, JasperReports, Web Services and AJAX technologies, by a team of developers to run on OC4J and Oracle 9i/10g. My responsibilities included:

- architecture, design, development and documentation of each application
- delegating tasks and managing resources
- managed frequently concurrent projects to ensure deliverables were met within budgetary and time constraints
- ensuring best practices were employed in product development, QA and release. This included implementation of CI/TDD infrastructure via JUnit, Maven, and CruiseControl, and OTRS Issue Management, as well as enforcing process and documentation standards.
- extensive customer liaising to gather requirements, and deliver products

The applications were delivered to several prominent hotel chains, including Maybourne, Jurys Doyle, Dorchester, Choice and Shire Hotels.

August 2000 to May 2001: Compaq, Gold Coast, QLD Australia.

Position: Software Engineer (Contractor).

Development on a middleware product called iOrchestrator that provided heterogeneous E-Commerce integration from Microsoft BizTalk Server 2000 to legacy applications such as SAP, Oracle, Siebel and ADO across several transports such as MSMQ, MQSeries, EJB, HTTP and DCOM. This set of products comprised the prime integration to BizTalk.

My responsibilities were to develop .NET and EJB components that would form the interfaces to BizTalk and Tomcat respectively. The components were developed in C++ and Java to support Windows 2000, NT, and Tru64 Unix. The product was released to market two months after the first release of BizTalk.

March 1999 to November 1999: OzEmail, St Leonards, NSW, Australia.

Position: Software Engineer (Contractor).

OzEmail are one of the largest ISPs operating in Australia.

My duties were to the development and maintenance of several software systems around the corporate billing system, an object-oriented system called Infranet. These included:

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- Systems that retrieved customer account and usage data and performed billing transactions based on this data. These systems interfaced between the user, the Internet, the billing system, and other internal systems.
- Development of upgrades to a Swing GUI for the corporate billing system. This interface facilitated real time updating of customer account data on the system.
- Software development was in Java, Perl, C, CGI, HTML, UNIX shell script, and Infranet billing system objects and libraries.

May 1997 to March 1999: Compaq Computer Corporation, Ballybrit, Galway, Ireland (formerly Digital Equipment Corporation).

Position: Software Engineer (Permanent) Duties:

- 1* Design and implementation of upgrades to a systems diagnostic expert system for Digital UNIX and OpenVMS. This tool identifies performance, security and configuration problems/optimisations in network clusters.
- 2* Software development was in C++, C, Perl, CLIPS, DCL, UNIX shell script, Visual Basic, HTML, and CGI, using Booch Object-Oriented methodologies. Rational Rose using UML was used in the analysis/design phases. The software was developed to be compliant with ISO9000.

August 1995 to May 1997: Analog Devices B.V., Raheen, Limerick, Ireland.

Position: Programmer/Analyst (Permanent)

Duties were to develop and maintain software used by the production floor and respond to user problems. Software was developed in Fortran on VAX/Alpha systems

May 1992 to November 1992: Co-operative Experience with Philips, Eindhoven, Holland.

Position: Trainee Engineer in the Research and Design Test Department (Nat. Lab).

Worked on a research project that involved conducting an Inductive Fault Analysis on a Philips IC clock generator.

EDUCATION & TRAINING

Third Level Education:

- Completed Andrew Ng's Machine Learning Course, and AI Course by Sebastien Thrun and Peter Norvig
- Completed MSc in Technology Management in UCD Smurfit Business School. Received a scholarship for this study, graduating with a 2.1 GPA.
- Received a 2.1 Graduate Diploma in Computer Engineering in 1995 from University of Limerick
- Graduated in 1994 with a 2.2 B. Eng. in Electronic Engineering with a Telecommunications option from University of Limerick – Final Year Project was on Neural Networks with Genetic Algorithms

Leaving Certificate Results:

- Completed in 1990 with Honours-level A's in Mathematics, Applied Mathematics, Biology and Physics/Chemistry

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Special Awards:

- Received a scholarship for my Masters programme.
- Received a scholarship for my B. Eng. programme from parents' employer because of my high Leaving Certificate results, with full fees for four years paid.

Other:

- Keen technology hobbyist, home projects include developing Angular, React, Xamarin, with Firebase backends

INTERESTS AND HOBBIES

Playing music, reading, jogging, gym, and computers.

REFERENCES

Available on request