

# GREGORY JENKINS

## SOFTWARE DEVELOPER

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## PROFILE

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A Software Developer with skills and knowledge for developing software solutions, predominantly .NET web applications and services, in commercial and government environments.

Most recently contracted as a part of the team developing a thoroughbred racing platform until September 2024. Attained the Master of Information Technology degree from the UTS in 2011. Constantly seeking opportunities to learn and improve in all areas of the Information Technology discipline. Targeting a career path that will lead to a position with architectural responsibilities and building innovative solutions.

## SKILLS

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### FRONT-END TECHNOLOGIES

AngularJS	HTML	Sass
Angular 2-14	JavaScript	SystemJS
Bootstrap 3-5	jQuery	TypeScript
CSS	JSON and XML	WebPack
Gulp	NPM	

### BACK-END TECHNOLOGIES

.NET 6	Azure Key Vault	NHibernate
.NET Core 1.1-3.1	Azure Service Bus	NUnit
.NET Framework 3.5-4.7	C# and VB.NET	Oracle Database 11g
ASP.NET Core 1.1-6	Entity Framework 6	RabbitMQ
ASP.NET MVC 4-5	IIS 6.0-10.0	SQL Server 2005-2017
ASP.NET Web API 2	LINQ	StructureMap
AutoMapper	MongoDB	T-SQL
Azure Cosmos DB	Moq	
Azure Functions 3	MSTest	

### TOOLS AND METHODOLOGIES

Agile	GitHub	SDLC
Azure DevOps	GitLab	SOLID Principles
BitBucket	Jenkins	TFS 2008-2015
CI/CD Pipelines	Jira	UML
Design Patterns	OOD and OOP	Visual Studio 2008-2022
GitFlow	RESTful Web Services	YAML

# EXPERIENCE

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## SENIOR DEVELOPER (CONTRACT) . RACING AUSTRALIA LIMITED

January 2022-September 2024 . Melbourne, Victoria, Australia

### GitHub Actions CI/CD Pipelines

Established the standard workflows for using GitHub Actions to implement CI/CD pipelines. After originally using Jenkins for pipelines then having completed the migration of repositories to GitHub, a decision was made to migrate pipelines also. Collaborated with developers and testers to implement pipelines across the department.

The pipelines configured using YAML files in active repositories, which included a monorepo with multiple interconnected applications and libraries. Utilised protected environments that only allow specified branches and required reviewer approvals for deployments. Self-hosted runners were setup to enable on-premises deployments, with the option to self-host runners on Kubernetes explored.

### SonarQube Implementation

Managed the installing, configuring and integrating of SonarQube for static code analysis in the development process. Using the CI/CD pipelines to execute the code scans, the results then upload to the SonarQube server for analysing code quality, code coverage and security vulnerabilities.

Worked with the Infrastructure team to provision an instance on Kubernetes via Helm. Setup SAML authentication and the initial scan tasks in the CI pipelines. Adopted in combination with SonarLint to enable developers to identify code issues and resolve them before committing to source control.

### DevLake Implementation

Managed the installing and configuring of DevLake to gain insights into the effectiveness of the development function. Setting up connections to tools, which include Jira, GitHub, SonarQube and Jenkins, it allows daily collection of data that is reported through built-in and custom dashboards.

Also working with the Infrastructure team to set it up using a Helm chart. The Management team can visualise the performance of development over adjustable periods. DORA metrics were also configured using cross-domain data to show performance relative to industry benchmarks.

### GitHub Migration

Coordinated the migration of all repositories from Subversion (including history) and Azure DevOps onto GitHub. This meant working with various teams having tasks and projects in progress to minimise any disruption. The migration allowed developers and testers to use a single consolidated platform, modernised tooling and consistent development practices.

A phased approach was planned and executed with weekly migrations. Organised and conducted training sessions for developers without Git experience before the migration started. Also started a training repository to allow any developers to learn and improve their Git skills. The migration tasks were carried out using SubGit 3.3.17 and validated with WinMerge for accuracy.

### Development Process Guideline

Responsible for the generation of a guideline for the workflows and policies of the development process. Based on the DevOps cyclical phases, where each phase has a set of outputs that feed into other phases, which are defined in the guideline.

One aspect of the guideline outlines GitFlow as the branching strategy. The monitoring aspect refers to adopting observability tooling, with trials for Datadog and Dynatrace carried out.

## Jenkins Implementation and CI/CD Pipelines

Setup a Jenkins server and agent that connected to Subversion and Azure DevOps for CI/CD pipelines. Multibranch pipelines were created that trigger on certain events in source control.

Hosted Jenkins 2.462.2 with on-premises virtual machines, with Visual Studio 2019 installed on the agent. The pipeline configuration was defined on the server through a plugin rather than in the repository. Integrated with Jira for build results and Teams for build notifications.

## Progressive Nominations

Led the development for the improved and streamlined nomination function, where a race entry needs to go through eligibility checks and confirmation to compete. Built in an event-driven microservices architecture, the nomination applications form part of the services platform.

The microservices are .NET 6 applications using the Graph SDK to integrate with Azure Active Directory, OLE DB with SqlKata 2.3.9 to connect to Oracle Database 11g, AutoMapper 11, RabbitMQ, SignalR.StackExchangeRedis 6.0.9, Swashbuckle (AspNetCore) 6.4.0 and NUnit 3.13.3. The front-end is an Angular 14.2.0 application using TypeScript 4.8.2, Sass, CSS 3 and HTML 5.

## .NET DEVELOPER (CONTRACT) . BLACKHAWK NETWORK (AUSTRALIA) PTY LTD

February 2021-August 2021 . Melbourne, Victoria, Australia

### Promo Central

Worked on the platform designed to run promotions for clients and process claims for their customers. The solution includes a public-facing application to serve customisable and brand specific content. The back-end is based on CQRS and Event Sourcing, storing each event as a NoSQL document and then creating projections. Responsible for maintaining the Azure DevOps build and release pipelines.

All APIs are Azure Functions 3, with a combination of HTTP, Timer, Azure Service Bus and Azure Cosmos DB triggers. Built on .NET Core 3.1, Auth0 for authentication, Azure Key Vault, Azure Cosmos DB .NET SDK 2, xUnit.net 2.4.1 and Moq 4. The internal front-end application is TypeScript 3.4, Angular 8, Bootstrap 4, jQuery, JavaScript, Sass, CSS 3 and HTML 5.

## FULL STACK DEVELOPER (CONTRACT) . VCS FOUNDATION LTD

August 2020-November 2020 . Melbourne, Victoria, Australia

### Jean Hailes

Contributed to the women's health platform to manage screening for and vaccination against specific diseases. The Jean Hailes platform processes information about vaccination programs and members, which required feature updates and maintenance. It is based on VCS core components and packages that are reused between microservice and front-end solutions.

A set of .NET 4.7.2 microservice and front-end solutions, including Azure Functions, that utilise Azure Service Bus topics for messaging. Built on SQL Server 2019, Entity Framework 6.1.3, Unity 3.5, Serilog 2.8, Vue.js 2.6.11, CSS 3 and HTML 5. Hosted on Azure cloud services with Azure Active Directory for membership management.

## Immunisation Program System (ImPS)

Involved in the redevelopment of a platform built for the DHHS to manage vaccination schedules, inventories and administration. Also based on VCS core components and packages. Developed the integration with the Australian Immunisation Register (AIR) to record vaccinations with the Australian Government.

Built using the VCS core technology stack that allows reusability and maintainability.

## .NET DEVELOPER (CONTRACT) . RACING AUSTRALIA LIMITED

November 2019-January 2020 . Melbourne, Victoria, Australia

## Partner API

Responsible for implementing the foundation of an API to allow external access for partners. This included designing the solution structure which allows retrieval and updates of specific information. Part of the solution involves authentication using API keys and basic credentials, as well as role-based authorisation.

The API is built to integrate with existing .NET Framework 4.7.2 libraries, which utilised OLE DB, that access an Oracle Database 11g instance. The API layer includes ASP.NET Core 2.1, AutoMapper 9, Swashbuckle (AspNetCore) 4.0.1, MSTest and Moq 4.

## SENIOR SOFTWARE ENGINEER (CONTRACT) . ARROWBAY SOLUTIONS PTY LTD

August 2019-November 2019 . Melbourne, Victoria, Australia

### ANZ Online Customer Profiles (OCP)

A part of the team developing an API for the ANZ Credit Processing Transformation program, which involved centralising customer profiles. The Institutional Banking team leverage customer profile information, including credit and lending, using dynamic forms to make financial decisions. Contributed to migrating the solution from .NET Framework to .NET Core and introducing MongoDB to store profile template data.

OCP is a solution migrated from .NET Framework 4.6.1 to .NET Core 2.2. Also, migrated from ASP.NET MVC 5.2 (Razor) and ASP.NET Web API 5.2 to ASP.NET Core 2.2. Built on Entity Framework (Core) 6.2.0/2.2.6, MongoDB C# Driver 2.9.2, AutoMapper 7.0.1/8.1.1, NLog 4.5.11/4.6.7, NLog.Web.AspNetCore 4.8.4 and Swashbuckle (AspNetCore) 5.6.0/4.0.1. Integrating document storage through WCF with IBM FileNet Content Manager.

## C# .NET DEVELOPER (CONTRACT) . SPORTSBET PTY LTD

May 2018-April 2019 . Melbourne, Victoria, Australia

### BB8

Worked on the trading platform responsible for pricing the odds on domestic and international thoroughbred, greyhound and harness racing. With several sources feeding in, BB8 is the decision engine that automatically calculates the odds for any given race. Developed features for and supported the operation of the platform, including tooling such as Bamboo and Octopus Deploy.

BB8 is a series of microservices consuming various sources of data and producing race odds. Built on .NET 4.5.2, ASP.NET MVC 5 (Razor), ASP.NET Web API 2.2, Topshelf 4.0.3, Dapper 1.50.2, Entity Framework 6.1.3, AutoMapper, Autofac, RabbitMQ, Confluent.Kafka, NUnit, RhinoMocks, AutoFixture, Gulp, Bootstrap 3, jQuery, JavaScript, CSS 3 and HTML 5.

### E-Sports Trading Platform

Implemented a solution to solve a technical race condition issue within the e-sports platform and how it worked with RabbitMQ. Due to existing architecture and the RabbitMQ implementation a problem existed with the processing order of messages. Collaborated with the team to solve this using a .NET in-memory cache to handle message sequencing.

The platform is comprised of .NET 4.5.2, ASP.NET Web API 2.2, Topshelf 4.0.3, Entity Framework 6.1.3, AutoMapper, Autofac, RabbitMQ, NUnit, RhinoMocks and AutoFixture.

## SENIOR .NET APPLICATION DEVELOPER (CONTRACT) . HISCOX UNDERWRITING SERVICES LTD

August 2017-March 2018 . London, London, United Kingdom

### Better Underwriting Decisions (BUD)

Worked on developing features and maintaining BUD, a system which integrates with OpenBox for policy management, Dynamics CRM for workflow tasks and eDOCS for document storage. Supporting commercial

underwriters, mainly operating at Lloyd's of London, and the wider business. Tooling included Jira, BitBucket, TeamCity 2017.2.1 and Octopus Deploy.

A microservices environment built on .NET 4.6, ASP.NET MVC 5 (Razor), ASP.NET Web API 2, Dapper 1.50.2, Entity Framework 6.1.3, NUnit, AutoMapper, RabbitMQ and SignalR 2.2.2. A hybrid front-end solution using Angular 4.3 and AngularJS 1.6 with NPM, Gulp, SystemJS, TypeScript 2.0, CSS 3 and HTML 5.

#### FULL STACK .NET/ANGULAR DEVELOPER (CONTRACT) . ONE HOUSING GROUP

March 2017-August 2017 . London, London, United Kingdom

##### Property Component Manager

Responsible for establishing the technical approach for the solution to manage the components and fittings within a property. Introduced front-end technologies such as TypeScript for strong typing of JavaScript, package management with NPM and Angular 2 as the front-end framework.

Built on .NET Core 1.1 in a microservices environment and using Unity 4, Entity Framework 6.1.3, Swagger/Swashbuckle, NPM, Gulp, WebPack 2.2, TypeScript 2.0, Angular 2.2, Bootstrap 3.3.7, CSS 3 and HTML 5.

##### Supplier Request Portal

Worked with the team on a portal designed to streamline the RFI and RFC process for external suppliers. The system utilises an intuitive interface and automatically generates requests sent to the corresponding contacts.

Also built on .NET Core 1.1 using NPM, Gulp, SystemJS, TypeScript 2.0, Angular 2.2, Bootstrap 3.3.7, CSS 3 and HTML 5.

##### Housing Patch Management

Contributed to the development and maintenance of the series of APIs and client application to manage accounts, tenancies, ASB, complaints, inspections, repairs and visits. The solutions include SSIS packages for migrating data on set intervals.

A set of .NET 4.6 solutions in a microservices environment with SQL Server 2014 databases including SSIS packages. Built with ASP.NET MVC 5 (Razor), ASP.NET Web API 2, Entity Framework 6, NUnit, AngularJS, Bootstrap 3.3.4, JavaScript, CSS 3 and HTML 5.

#### C# DEVELOPER (CONTRACT) . HAYMARKET MEDIA GROUP

October 2016-March 2017 . London, London, United Kingdom

##### Volkswagen Group Hub

Worked on both the front-end and back-end for the VWG Hub, a solution designed as an internal content publishing platform for launch announcements, articles, videos and documents. Built using a custom CMS which enables editors to build modular content. Features include the ability to create pages, secure groups, reading lists and configure individual profiles.

A .NET 4.5 solution built on ASP.NET MVC 5 (Razor), ASP.NET Web API 2, MongoDB for storing content, MongoDB C# Driver, NUnit, AutoMapper, RequireJS, Knockout.js, Bootstrap 3, jQuery, JavaScript, CSS 3 and HTML 5.

##### The Trade Parts Specialists Microsite

Solely responsible for implementing a microsite within the VWG Hub which manages user access details for TPS centres across the United Kingdom. A bespoke solution required in a limited amount of time designed to allow centre managers to provide employee details to access the VWG Hub.

Contained as a site within the VWG Hub platform using the same technology stack.

## Wanderlust

Implemented AES 128 CBC encryption for the Wanderlust user authentication that previously stored certain user details unencrypted. The legacy Wanderlust solution comprises sites that utilise the same custom user authentication provider, which will store user details securely in an SQL Server database.

An ASP.NET Web Forms application built on SQL Server 2008 R2, ADO.NET, Telerik ASP.NET AJAX, jQuery, JavaScript, CSS 3 and HTML 5.

## FRONT-END DEVELOPER (CONTRACT) . THE ADVERTISING CLUB LTD

August 2016-September 2016 . London, London, United Kingdom

### Advertising Club Expansion Tool (ACET)

Responsible for the front-end development of ACET, a tool which enables users to configure Google AdWords campaigns for specific location targeting, budget limits and keyword searches. The application also creates visual representations of how the advertisements will be displayed as well as performance.

The front-end is an ASP.NET Core application with MVC 6 (Razor) built on .NET 4.6, TypeScript, SystemJS, Angular 2, Bootstrap 3, JavaScript, CSS 3 and HTML 5.

## DIGITAL DEVELOPER (CONTRACT) . SOUTHERN CROSS AUSTEREO PTY LTD

November 2015-May 2016 . Sydney, New South Wales, Australia

### Scoopla CMS

A part of the team which comprised of designers and developers to build a CMS solution for a rebranded news and content site. Features include DoubleClick for Publishers (DFP) integration for advertisements, Open Graph tagging for social media sharing and Google Tag Manager for analytics. A Scrum based project utilising Jira for tasks and sprint management.

A CMS platform built on .NET 4.5.2, ASP.NET MVC 5 (Razor), ASP.NET Web API 2.2, EPiServer 9, AutoMapper, StructureMap, NUnit, Moq, TypeScript, Bootstrap 3, JavaScript, CSS 3 and HTML 5.

### Web CMS

Worked on enhancing and maintaining the CMS platform used for all Triple M radio network and Today radio network sites across Australia. Also integrates with DFP for advertisements, ImageVault for managing image assets and Ooyala for managing video assets.

CMS platform built on .NET 4.5.1, ASP.NET Web Forms, ASP.NET Web API 2, EPiServer 7, AutoMapper, StructureMap, NUnit, Moq, Handlebars, jQuery, JavaScript, CSS 3 and HTML 5.

### The Greenfield Post

Contributed to the development of a sporting news and opinion site introduced as a part of the SCA content delivery channels. A standalone brand which leveraged and extended the existing Web CMS platform for functionality and content.

Built as a new site on the Web CMS platform with the same technology stack.

### Dalmore Web Service

The service responsible for providing information about SCA radio stations, streams, regions and markets. Implemented Web API endpoints in parallel to the existing WCF endpoints to allow compatibility for external service clients.

A .NET 4.5 service originally WCF and migrated to Web API 2, Entity Framework 6, AutoMapper, Unity, NLog, NUnit and Moq.

## BUSINESS SYSTEMS DEVELOPER . BALMAIN NB CORPORATION LIMITED

January 2015-November 2015 . Sydney, New South Wales, Australia

### Metro Finance System

Responsible for the technical aspects and development processes of a core asset financing system designed to allow brokers to login and submit loan applications. The system also enables credit analysts to perform and record credit assessments of borrowers, and the settlements team to finalise the loans and generate banking disbursements. Integration with other services includes Australian Business Register searching and exporting information for loan servicing.

A combined ASP.NET Web API 2, ASP.NET MVC 5 (Razor) and for generating documents ASP.NET Web Forms application built on .NET 4.5, SQL Server 2014, Entity Framework 6, Autofac, Kendo UI with .NET 4.5, AngularJS, Bootstrap 3, JavaScript, CSS 3 and HTML 5.

## .NET DEVELOPER . TICKETEK PTY LTD

July 2013-January 2015 . Sydney, New South Wales, Australia

### Insight Refresh

Technical lead on a project designed to report on the real-time information of active users, holds and sales. This system collects data from various sources, including Google Analytics, a centralised ticketing system and MongoDB. This information is aggregated through a back-end process to be represented through an interface where it is grouped by dimensions such as channel, customer location, customer segment and referral source.

The solution includes an ASP.NET Web API 2 microservice that could be leveraged for other operational reporting, ASP.NET MVC 5 (Razor) with D3.js, Knockout.js, JavaScript, CSS 3 and HTML 5 for the reporting interface, Amazon Kinesis for aggregating live data and MongoDB for storing these aggregations, NHibernate 4, StructureMap and AutoMapper.

### Core Systems Redevelopment (CSR)

A part of the CSR project which involved the redesign and redevelopment of major components of the ticketing infrastructure along with the introduction of dynamic prices and fees for events. This included moving from a central UNIX journal-based system towards a more Service Oriented Architecture.

ASP.NET Web API 2 microservices using .NET 4.5, ASP.NET MVC 4 (Razor) and Kendo UI with .NET 4.5, JavaScript, CSS 3 and HTML 5, data stores a combination of SQL Server 2008 R2 and MongoDB, Entity Framework 6, MongoDB C# Driver, StructureMap, MSTest and Rhino Mocks.

### Payment Service

Worked towards PCI compliancy and the tokenisation of credit card details. This iteration of the payment service included merging features to protect against fraud and recording payments in a relational database as opposed to a journal-based system. A credit card vault provided the tokenisation function required for PCI compliance.

A WCF service built on .NET 4.0, MySQL 5.6, ADO.NET, AutoMapper, Unity, MSTest and Rhino Mocks.

### Event Studio

Involved in the stabilisation and optimisation of a WPF application communicating with a WCF service designed to manage events. Able to find and resolve memory leakage issue causing client machines to crash after extended usage. Used tools to help find the cause including Telerik JustTrace and JetBrains dotTrace.

A WPF application built with .NET 4.0, communicating with a WCF service built with .NET 4.0, SQL Server 2008 R2, Fluent NHibernate, Unity and MSTest.

## SOFTWARE DEVELOPER . INFOMASTER PTY LTD

March 2012-June 2013 . Sydney, New South Wales, Australia

### OpenCouncil E-Services Platform

Developed and optimised parts of the core framework including bookings, certificates and payments modules. Coordinated with development partners to improve the user experience of these different modules.

Originally an ASP.NET Web Forms application built on .NET 3.5 and SQL Server 2008 R2. Introduced improvements such as ASP.NET MVC 4 (Razor) with .NET 4.0, NHibernate, StructureMap, NUnit, Moq, DevExpress MVC Extensions, jQuery, JavaScript, CSS 3 and HTML.

### Manly Resident Card System

Lead developer on a system for Manly Council where residents apply for a resident card to receive benefits such as extra time in parking stations. Integration with other council systems such as property management, accounting and parking stations.

An ASP.NET Web Forms application built on .NET 3.5, SQL Server 2008 R2, NHibernate, Telerik ASP.NET AJAX, jQuery, JavaScript, CSS 3 and HTML.

### SOFTWARE DEVELOPER . AXESS PTY LIMITED

December 2008-March 2012 . Newcastle, New South Wales, Australia

### Job Scheduling System

Part of the team to deliver a business management tool for scheduling jobs and resources for organisations. The software includes a scheduler interface where drag-and-drop functionality allows users to allocate and reorganise jobs, and a mobile web interface for resources to access their schedules.

An ASP.NET Web Forms application built on .NET 3.5, SQL Server 2008, ADO.NET, Telerik ASP.NET AJAX, jQuery, JavaScript, CSS and HTML.

### Online Airline Incident Reporting System

Lead developer of a project to develop a web interface for an airline incident reporting system consisting of legacy components initially developed by the client. The achieved solution allows airline personnel to report incidents from any location without needing to install the airline software.

An ASP.NET Web Forms application built on .NET 3.5, SQL Server 2005, ADO.NET and Telerik ASP.NET AJAX, JavaScript, CSS and HTML.

### Reliability Availability Maintainability Data Analysis Tool

Involved in the development of an analysis tool for a large government organisation as an outsourced developer. The tool allows data analysts to import data from various Excel spreadsheets for sorting, censoring and classifying. Correlations, calculations and reports are then produced from the manipulated data.

A Windows Forms application built on .NET 3.5, Access 2007, ADO.NET and Telerik WinForms.

### Payroll Processing System

Worked as a part of the team to build a system to process payments of workers on complex AWAs for a labouring organisation. The outcome was a system that produced the remuneration for workers.

An ASP.NET Web Forms application built on .NET 3.5, SQL Server 2005 and ADO.NET.

## EDUCATION

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### MASTER OF INFORMATION TECHNOLOGY . UNIVERSITY OF TECHNOLOGY SYDNEY

Completed 2011 . Distinction average

Enterprise Software Architecture (High Distinction)



Project Management (High Distinction)  
Database in Distributed Environments (High Distinction)  
Business Intelligence (Distinction)  
Mobile Communications and Computing (Credit)  
IT Research Preparation (Credit)

#### BACHELOR OF INFORMATION TECHNOLOGY (BUSINESS INFORMATION SYSTEMS) . UNIVERSITY OF NEWCASTLE

Completed 2008 . Credit average

Major project an online food ordering and delivery system for the Newcastle region (High Distinction)  
Database Management Systems (High Distinction)  
Project Management (Distinction)  
Internet Communication (Distinction)  
Data Security (Credit)  
Information Systems Programming (Credit)  
Design Process (Credit)

#### HIGHER SCHOOL CERTIFICATE . GREEN POINT CHRISTIAN COLLEGE

Completed 2004

Certificate II in Information Technology  
The Australasian Schools Computer Skills Competition 2004 (Credit)