

# Garrett James Cassar

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Greenwich, London

## WORK EXPERIENCE

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### Digiterre

September 2021 – Present

*Contracted Software Consultant*

- Placed on a project for a very high net worth bank, to work on a project in **Foriegn Exchange Overlay**, which helps investors in various mutual funds to be protected against the price fluctuations in currency exchange.
- This project **replaced a legacy system** with the main goal of allowing the middle office team to program in different hedging models with minimal intervention from tech, allowing for quick onboarding of new clients and automatically submitting trades.
- Heavily involved in delivering a major Hedge model 'Archetype' which required significant changes to the codebase as well as contributing to performance improvements and designing scalable APIs that made a **sensible use of GraphQL**.

*Technologies Used*

- Java, Spring, Postgre, flyway

### Ocado

September 2020 — September 2021

*Senior Software Engineer*

- Senior software engineer in the CMS project, responsible for delivering functional requirements.
- Technical owner of splitting a large monolith into several small microservices.
- Updated legacy testing strategies that were coupled to the implementation of the code, creating a cross over plan and facilitating many design sessions on the microservice design IDEALS and concepts.
- Made improvements to planning sessions by creating clarity through "Behavioral Acceptance Criteria" in a Given/When/Then format and matching those to high level testing requirements.
- Addressed serious performance requirements which stemmed from naive use of JPA.

*Technologies Used*

- AWS Services, EC2, ECS, Java, Spring

### InfinityWorks

June 2019 — September 2020

*Technical Consultant*

*Virgin Red*

- At InfinityWorks I was placed for a loyalty scheme startup among Virgin franchises, expanding out their existing loyalty framework that belonged to the virgin air miles program.
- I was heavily involved in the **design, architecture and the implementation** of the core API which covered integration with the ledger system, orders, PPI handling, user onboarding.
- I later worked as the lead back end engineer for the support portal of the app delivering secure access to customer information and operations.
- I worked closely with the Head of technology at Virgin Red to create a delegated user access model of our design.
- Here I designed a completely **codeless middleware** for the support portal using AWS architecture
- I was heavily involved in the conversation with clients and stakeholders, both technical and not technical, often creating sets of documentation to cater to both audiences.
- Taking a more central role I found that **strong communication** through **diagrams, wikis** and **personal asynchronous communication** to be paramount as the company scaled up from 2 teams to 6.

*Technologies Used*

- AWS services, EC2, Fargate, DynamoDb, RDS, Elasticache, X-RAY (Side-car deployment pattern), Virtual Private Cloud, S3, Cloudwatch, SES, SQS and Lambdas. Terraform for implementing Infrastructure as code.
- Cucumber for component testing
- Contract testing and dependency mapping with PACT
- Java, Spring
- Grafana and micrometer

*Software developer*

- Worked on several projects which focused on **automating back-office operations** that process and display information pertaining to corporate actions such as corporate mergers, stock splits and dividend payouts.
- I used **reflection and code generation tools** to create a program that automated various onboarding processes from different source companies, saving the team several months of development time per year, while eliminating elements of human error.
- Led a self driven project to automate a manual stock transfer process. Gathering requirements, designing solutions and actively developing on the project. The project saved the company an estimated 250k a year and helped to conform to upcoming regulatory requirements.
- Worked on several front office projects in the core dealing system including projects to include support for **new financial instruments** such as **vanilla options**, knock in and knock outs, a project to conform to Mfid regulatory requirements and many more to support already existing trading instruments
- Worked on projects to refactor large parts of the front office trading system to address 10 plus years of tech debt, using intelligent domain driven design and software principles

*Technologies used*

- Java, Spring, flyway, Cucumber, JMS ,Coherence (In-data memory grid), Kafka (minimally)

**Appsbroker**

June 2015 — September 2016

*Software developer*

- Worked on web applications, which we provided for SaaS as internal corporate software.
- My responsibilities included gathering requirements, estimating software delivery, development and managing releases on the Google cloud platform, as well as supporting the live application

*Technologies used*

- Angular, Java, Google cloud platform, Jenkins, Git, Spring, Supporte tests on selenium web driver

## EDUCATION AND QUALIFICATIONS

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## University of Reading

- Computer Science Bsc. *First Class*

## Google cloud platform Certifications (2016)

- Google Big Query, Google Cloud Storage, Google App Engine, Google Datastore.

## AWS Solution architect Associate (2022)

- (Pending)

## BOOKS READ

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Clean Coding, Clean Architecture, Effective Java Third edition, Domain-Driven Design, Enterprise Patterns, Gang of four Design Patterns, The Phoenix Project, The DevOps Handbook, Measure What Matters.

## ABOUT ME

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Throughout my career I have developed a distinct appreciation for clear communication, good testing strategy, and 'the exponential cost of fixing a bug' as guiding principles.

I write a technical blog on Medium, where my posts are published by the online tech publishing company 'Nerd for Tech'.

In my free time, I like to cycle, kickbox, play football (badly) and go to the gym. I actively trade stocks and occasionally cryptocurrency.