

Reece Carruthers

GitHub: github.com/Reece-Carruthers

Scala software engineer at HM Revenue & Customs

Location: **Newcastle Upon Tyne**

Personal Profile

I am currently a Scala software engineer at HM Revenue & Customs. I graduated from Northumbria University with a first-class honours in Computer Science in July of 2024. I would describe myself as a person with a strong work ethic who takes pride in their work and has strong critical thinking skills, which helps me to solve problems. I would also consider myself to be a happy and approachable individual who is easy-going, but serious when the time calls for it.

I have always had a passion for learning and understanding software which has only grown since my university degree and working as software engineer. The main reason for that passion is because I like getting stuck into interesting and complex problems and figuring out the best way to solve them.

Skills Summary

- Problem-solving
- Critical thinking
- Java, Scala and Play
- Test Driven Development
- Design and analysis skills
- Programming skills
- Strong communicator
- Customer service skills
- Leadership qualities
- Quick learner
- Collaborative working skills
- Time management skills
- Adaptability
- MongoDB
- Git
- Debugging
- Unit testing

Employment History

2022-2024 (Present) Software Engineer HM Revenue & Customs

Skills: Scala programming, test driven development, MongoDB, Json, HTML, CSS, HATEOAS & Restful API, WCAG, accessibility, GitHub, agile with scrum, collaboration, working under pressure.

Projects

Trader Goods Profile (TGP) - Latest

- Worked on a frontend and backend scrum team to allow Northern Irish traders to easily categorise the goods they transport.
- Improved the Scala code base to become more readable, this included massive overhauls to how user navigation was handled, file structures and general refactoring to separate logic from controllers into specific files.
- Helped the team transition to a new supplier which included upskilling new developers from Accenture.
- Helped the project to get ready for live service hand-over and public beta.
- Created Tampermonkey scripts to speed up the manual testing within the frontends.

Notification of Presentation Waiver (NOP)

- Worked on a backend API to allow traders to check the status of their EORI numbers.
- Spotted several bugs and applied fixes to ensure production was unaffected ahead of launch.
- Helped improve the testing strategy by improving automated test coverage, as well as, changing our stubs to allow dynamic testing data which greatly increased the range of possible automation tests.

New Computerised Transit System (NCTS) - Oldest

- Worked as part of an agile with scrum frontend development team to create the New Computerised Transit System (NCTS) which allows traders to declare their departure and arrival of goods going to and from common transit convention countries.
- Innovated by creating Tampermonkey scripts, written in JavaScript, to help speed up manual testing of services which worked by automatically filling out the form data of each page. Written to be as maintainable and re-usable as possible.
- Developed webpages using Scala and Play framework utilising test driven development.
- Worked under pressure to ensure development was on track for the legislative deadline for NCTS.
- Developed new HTML components which met HMRCs strict accessibility requirements.
- Upskilled new members of the team.

Main HMRC duties:

- Develop frontend and backend microservices utilising Scala and Play framework.
- Adhered to strict accessibility requirements when creating new HTML components.
- Develop frontend and backend microservices utilising Scala and Play framework.
- Create clean, readable and testable code utilising test driven development.
- Work within a multi-faceted scrum team.
- Be T-shaped and be able to test other developers code, including manual, integration, automation and journey testing.
- Adhere to strict accessibility requirements ensuring any frontend components are accessible.

Education and Qualifications

2019-2024 BSc (Hons) Computer Science Northumbria University

Grade achieved: First Class Achieved

Skills:

- Led and managed group projects, I took responsibility for delegating tasks, organising meetings, and helping those in my group. This has further developed my leadership qualities along with my collaborative working skills.
- Improved programming skills and problem-solving skills by solving programming problems involved in university assignments and during non-working hours.
- Gained proficiency in many skills such as: object orientated programming in Java, MySQL, JavaScript, PHP, HTML5 and CSS.
- Gained leadership and time management skills by managing a team of students by fairly allocating tasks, setting deadlines, resolving conflict, and assisting where required.
- Design and analysis skills in a software engineering context have vastly improved by completing the following modules: systems analysis, program design and development, human computer interaction and software engineering practice.
- Developed and designed backend APIs in PHP for a dissertation and group projects.
- Created a React frontend and backend for my dissertation to allow the discussion of generative AI in a university setting.

2015-2019 GCSEs/A-Levels Kenton School

Results: Achieved 10 GCSEs including Maths and English, as well as three A levels in Computer Science, Biology and Chemistry.