

# Rowand Mohammad

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[Github](#) | [LinkedIn](#) | [Portfolio](#)

## EDUCATION

### Master of Science - Machine Learning

Royal Holloway University of London : Distinction

Sep 2022 - Sep 2024

London, UK

### Bachelor of Science - Computer Science

Royal Holloway University of London : Upper Second Class Honors (2:1)

Sep 2019 - June 2022

London, UK

## EXPERIENCE

### Technical Consultant

October 2023 - October 2024

The Software Institute

London, UK

- **Developed scalable microservices** using **Java Spring Boot**, implementing layered architecture (Controller, Service, Repository) for modularity and maintainability.
- **Optimized database queries** with **MySQL** and **MySQLHibernate**, reducing query response times by 25% through indexing and performance tuning.
- Automated deployment pipelines with **Jenkins** and **Docker**, reducing deployment times by 30% and enhancing system reliability.
- Enhanced UI responsiveness by building **React.js** functional components and integrating React Hooks (useState, useEffect), improving user experience.
- **Implemented secure authentication** using JWT, managing token lifecycles and ensuring CORS compliance for distributed systems.
- **Designed and executed unit and integration tests** with **JUnit** and **Selenium**, increasing code reliability and reducing bugs by 20%.
- Collaborated with cross-functional teams in **Agile ceremonies**, including daily stand-ups and sprint planning, to ensure timely project delivery.

### Full Stack Developer (Training)

July 2023 - October 2023

The Software Institute

London, UK

- Developed end-to-end RESTful APIs with **Spring Boot** and **MySQL**, enabling secure and efficient data handling.
- Designed front-end authentication workflows using **React.js** with **Redux**, improving application stability and usability.
- Deployed applications to **AWS Elastic Beanstalk**, reducing release cycles by 40% and ensuring scalability.
- Applied **ISTQB-aligned testing practices** with **JUnit**, **Selenium**, and **Cucumber**, enhancing code coverage and robustness.
- Collaborated on a full-stack capstone project demonstrating comprehensive design, development, and deployment aligned with business goals.

## NOTABLE PROJECTS

### First-Person Shooter Zombie Survival Game

- Built a zombie survival **first-person shooter** game using **Unity** and **C#**, incorporating AI-driven enemies and immersive gameplay mechanics.
- Optimized performance by 85% through **Object Pooling** and **State Machine patterns**, reducing memory usage and enhancing efficiency.
- Utilized **Test-Driven Development (TDD)** with Unity's Test Runner, ensuring stability and maintainability.

### Sorting Algorithms Visualizer

- Developed an educational tool for visualizing sorting algorithms with **TypeScript** and **Next.js**, enhancing user comprehension.
- Improved engagement by 20% through dynamic visualization and responsive UI using React Hooks.

### Movie Rental Web App

- Built **RowRental**, a movie rental app using **Java Spring Boot**, **React.js**, and **MySQL**, delivering a seamless CRUD experience.
- Enhanced back-end reliability with **RESTful API** design, enabling efficient and secure data handling.
- Deployed to **AWS Elastic Beanstalk**, achieving faster deployment times.
- Tested for stability using **JUnit**, **Selenium**, and **Cucumber**.

### Ensemble Methods for Football Performance Prediction

- Improved prediction accuracy by 25% on football datasets using **Python**, **Scikit-Learn**, and **Matplotlib** with custom built machine learning ensemble methods.
- Built **decision tree** and **decision stump** algorithms, enabling scalable ensemble applications.
- Developed a **GUI** for real-time parameter tuning and model evaluation, simplifying experimentation.

## TECHNICAL SKILLS

Languages Python | Java | C++ | C# | JavaScript | TypeScript | SQL | HTML/CSS

Developer Tools Jira | BitBucket | Jenkins | Docker | Git | PowerBI

Frameworks/Libraries React.js | Spring Boot | Hibernate | AWS | Selenium | Scikit-Learn

## CERTIFICATIONS

- AWS Certified Solutions Architect - Associate
- ISTQB Certified Tester - Foundational