# Cariad Eccleston

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**Full Stack Engineer experienced in AWS infrastructure, Python, C# and Node.js backends, and React.js frontends.**

Meta-certified frontend developer. IBM-certified full stack + AI developer.

## Employment

### Freyda

Contract DevOps Engineer, March 2020 – May 2024

* Worked directly with the CTO to plan and deploy SaaS platform architecture in AWS.
* Developed and deployed infrastructure-as-code with CloudFormation, Python and Bash.
* Developed Python backend services to extract and process financial data from PDFs with PyTorch.
* Developed Python and Bash scripts and deployed MLFlow to support MLOps.
* Developed Python backend APIs with lambda-proxy.
* Built and deployed code via Docker, Lambda and Fargate.
* Managed PostgreSQL Aurora database schemas with Alembic and ORM with SQLAlchemy.
* Led the development of OAuth 2.0 / Single Sign-On, through Cognito, backend and Vue.js frontend. Wrote customer-facing documentation to guide Identity Provider configuration.
* Trusted to work with third-party security auditors and penetration-testers. Took responsibility for reviewing their findings and leading the development of their suggestions.
* Took responsibility for code security reviews and identified problems such as security fix regressions and user privilege escalation.

### NHS Digital

Contract Software Engineer, February - March 2020

* Migrated a C# SOAP service to .NET Core.
* Took responsibility for accuracy and reliability, since clinicians use the service 24/7/365 to provide life-saving care. I identified edge-cases and added additional tests to ensure an exceptionally high degree of confidence.
* Completed the migration on-time, and my approach to testing was spotlighted by the project’s leadership.

### Thomson Reuters Tax & Accounting

Software Team Lead, May 2005 – July 2019

* Developed and deployed SaaS platform microservices with C#, Node.js and Golang.
* Developed and deployed AWS infrastructure-as-code with Node.js, Python, Bash, PowerShell and Terraform.
* Led a global DevOps team to develop best-practices and Python tooling for teams across the business.

## Education

### IBM Full Stack Software Developer Professional Certificate

Taught by IBM Skills Network Team • 2024 • [verify at coursera.org/verify/professional-cert/9PI2RPOUMSOY](https://coursera.org/verify/professional-cert/9PI2RPOUMSOY)

* Reinforced my experience with Django, Node.js, Express.js and React.js.
* Gained experience with Kubernetes and deployed containerised microservices to IBM Cloud.

### IBM AI Developer Professional Certificate

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* Explored Hugging Face and a range of models.
* Gained experience using Pandas and NumPy for data science.
* Developed conversational and generative AI APIs with Python and Flask.

### Meta Frontend Developer Professional Certificate

Taught by Meta • 2024 • [verify at coursera.org/verify/professional-cert/3T6L6ZTNJJCK](https://coursera.org/verify/professional-cert/3T6L6ZTNJJCK)

* Developed interactive web applications with React.js and Node.js.
* Wrote unit tests for React.js components with Jest.
* Gained experience with Figma, and used it to build user journeys, wireframes and interactive prototypes.

### BSc (Honours) Computer Science

The University of Salford • 2004

## Open Source

I maintain and contribute to many open-source projects on GitHub at [github.com/cariad](https://github.com/cariad).

In 2021, I earned a [Mars 2020 Contributor badge](https://github.com/cariad?achievement=mars-2020-contributor&tab=achievements) from GitHub and JPL for my contributions to [boto/boto3](https://github.com/boto/boto3), which was used during NASA's Ingenuity helicopter mission on Mars.

In 2022, I released [wa11y.co](https://wa11y.co/) ([github.com/cariad/wa11y.co](https://github.com/cariad/wa11y.co)) to translate the Wordle game’s emoji patterns into accessible text. The app translated 30k+ games/month and was reported on by [The Verge](https://www.theverge.com/22892044/wordle-free-game-online-how-to-puzzle), [Slate](https://slate.com/culture/2022/02/wordle-word-game-results-accessibility-twitter.html) and [GameRant](https://gamerant.com/wordle-issues-accessibility-social-media-sight-impaired-emojis-readibility/).

## Conferences

### TechExeter Conference

Exeter, 2019

I hosted a talk about managing KMS customer keys in Amazon Web Services, some best practices for their IAM policies, and how to use those keys with Secrets Manager to manage credentials for RDS databases.

### AWS User Groups

London Docklands & Nottingham, 2016-2019

I was invited by colleagues at Thomson Reuters across the UK to talk at their local AWS User Groups about our challenges and strategies while migrating our SaaS platform from on-premises hardware into AWS.