

Mary Rose Cook

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About me

Hello! I'm Mary. I've written a lot of code in JavaScript, and some code in Clojure, Python and Ruby. I've written language compilers, a game programming environment for beginners, an implementation of Git and a video game that was featured in PC Gamer. I've helped write online stores, brand websites, an online community and a large message-sending service. I've spoken at JSConf, Strange Loop and Codecademy. I've just moved to London to be closer to my family.

Website maryrosecook.com

GitHub github.com/maryrosecook

Twitter twitter.com/maryrosecook

Employment

2013 - 2015 Facilitator (coach) at **the Recurse Center** in New York recurse.com

The Recurse Center (formerly known as Hacker School) is a three-month programming retreat in New York where attendees work on projects they choose.

My main job was as a coach. I did code review, pair programmed, helped with debugging, helped design program architectures and talked through people's learning goals. I also ran seminars on the innards of Git, functional programming and a rigorous approach to testing.

I overhauled our job preparation process to focus on feedback and realistic mock interviews. I refocused attendee evaluation criteria on the qualities we look for. I reworked our interviews to better evaluate programming skill.

I released my own projects, including an implementation of Git in JavaScript, two language compilers and a game programming environment for beginners. Please see the "Selected projects" section below.

Technologies: JavaScript, Clojure, Python, Node.js

2012 - 2013 Contract web developer at **Khan Academy** (remote) khanacademy.org

Khan Academy teaches academic subjects with videos and interactive exercises.

I wrote some of the first example programs for their online, interactive code editor.

Technologies: JavaScript, Canvas

2011 - 2012 Full stack developer at **Pusher** in London pusher.com

Pusher is used by realtime apps to send high volumes of WebSocket messages.

I wrote code for major new features like webhooks, peer-to-peer events, Node.js integration and multi-user accounts. I benchmarked performance to scale the service. I improved our system monitoring.

I overhauled our JavaScript library. I rewrote the connection logic as a state machine. I added unit and black box tests.

I interviewed potential employees with the CTO.

Technologies: Ruby, JavaScript, WebSockets, Redis, AWS, Rails, Node.js

2010 - 2011 Full stack developer at **Ableton** in Berlin ableton.com

Ableton makes Live, a music production program used by bands and DJs.

I was on the web team. I worked on the cart, product and promotion pages. I did big refactors of the nightmarish legacy code. I wrote code for the content management system used by the sales and marketing teams.

Technologies: Python, TurboGears

2007 - 2009 Full stack developer at **The Other Media** in London othermedia.com

The Other Media is a web consultancy.

I wrote server code for bespoke websites for the English Cricket Board, Which? and BAFTA.

I prototyped a website where university students mentor school children. Based on the prototype, I specified, project managed and built three full production websites: a social network, an education website and a knowledge base.

Technologies: Ruby, Rails, Java

2004 - 2007 Developer at **Rental Result** in Leeds

I programmed desktop software in Java.

Education

2000 - 2004 **MEng Software Engineering** at Sheffield University

I specialised in natural language processing and artificial intelligence.

1997 - 1999 **A-Levels** at Hills Road Sixth Form College, Cambridge

Maths, Physics, Geography, General Studies

1993 - 1997 **GCSEs** at Parkside, Cambridge

Maths, Biology, Chemistry, Physics, English Literature and Language, Geography, History, French, Media Studies

Selected projects

Gitlet gitlet.maryrosecook.com

An implementation of Git in JavaScript. I used what I learned from writing the code to write a [talk](#) and a [six-thousand-word deep dive essay](#) about the innards of Git.

Code Lauren codelauren.com

([Video demo](#).) A game programming environment for beginners. The user writes code for their game in a custom, easy-to-learn language. Their code runs on a virtual machine that lets them debug by pausing, stepping and rewinding their program.

Empty Black emptyblack.com

A 2D puzzle platform shooter. Throw crates, set off bombs, fire missiles, stab with your sword. Featured in [PC Gamer](#) and [Kill Screen](#).

Coquette coquette.maryrosecook.com

A micro framework for making JavaScript games. Handles collisions, the update loop, canvas rendering and input.