Rachel Evans

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Experienced Software Engineer and Technical Leader

I am a dedicated software engineer specialising in back-end development with full-stack proficiency. Over 30 years, I have continually expanded my expertise across multiple languages and technologies.

I excel at system design that improves security, scalability, reliability, and extensibility, always striving to deliver high-quality results. Through promoting standards, automation, and consistency, I contribute to resilient systems and operational excellence. I inspire engineering teams to work towards a clear vision, and I thrive on fostering collaboration.

Skills

Languages, Frameworks, and Infrastructure

- Java, Ruby, Ruby on Rails, bash, zsh, C, Python
- TypeScript / JavaScript, Node, React, Webpack
- HTML, CSS
- SQL: MySQL, Oracle, Postgres, MS SQL
- Redis, memcached, Kafka, ActiveMQ

Cloud & DevOps

- AWS: EC2, S3, Lambda, SQS, SNS, RDS, IAM, VPC, KMS, CloudFormation, Route53, Glacier, DynamoDB, SimpleDB, ACM
- Docker, Kubernetes
- * Git, GitHub Actions, CI/CD pipelines, Jenkins
- Linux Networking, Sysadmin

Automation & Tools

- Splunk, Datadog, Sentry, Wiz, Terraform
- GraphQL, REST, TCP/IP, HTTP, DNS, more Internet Protocols
- Cryptography

Leadership & Collaboration

- * Technical team leadership
- Architecture, design, and refinement
- Coaching and mentoring
- * Process improvement, standardisation, automation

Employment history

Volunteer Teacher / Mentor, Hack Your Future

Copenhagen, Denmark; August 2024 - present

Hack Your Future offers a coding "bootcamp"-style course to refugees, immigrants, and others disadvantaged in the job market.

I have been active in identifying things which add friction to the volunteer experience, communicating those issues, then proposing and (where possible) implementing solutions.

I am active in the mentor group, and participate in discussions and workshops around how to develop the curriculum.

I have also led some classes (e.g. teaching Git), and sometimes turn up to the weekly meetings purely to hang out and socialise, and provide guidance where requested.

Senior Software Engineer, Hedia

Copenhagen, Denmark; June 2024 - August 2024

The stack: full stack in TypeScript using a PostgreSQL database, deployed to Scalingo using GitHub Actions. REST via OpenAPI schema.

Even during the on-boarding process I identified inconsistencies and inaccurate information in the picture of the system with which I was being presented. I was thus able to query these points, and in several cases teach the team something that they were not aware of about their own system. We then rectified those points, thus increasing documentation accuracy, decreasing costs, and reducing friction.

I contributed several improvements to the build & deployment chain: for example, the ability to target a specific library when upgrading dependencies, thereby reducing the size and risk of changes. I also provided individual contributions to the TypeScript codebase, including security improvements.

Senior Software Engineer, Zendesk

Copenhagen, Denmark; February 2019 - May 2024

The stack: predominantly a large Ruby on Rails monolith using a MySQL data store and Kafka for messaging; deployed using GitHub Actions and Spinnaker and to a series of Kubernetes clusters in AWS. Additionally, various microservices in Ruby on Rails or TypeScript, and front end components in React.

Zendesk makes customer relationship management software (which is also called "Zendesk"). The company has offices and engineering teams around the world, with just more than 1500 engineers. The Copenhagen office mostly looks after one product within the Zendesk suite, "Guide", with 8 teams. I was tech lead for one of those teams.

As tech lead, I was responsible for ensuring that my team's work was compliant with relevant requirements and guidelines, and I acted as an enabling gateway (where required) between my team and the wider Zendesk engineering community. I took an active role in technical developments in that community, contributing ideas, questions, and comments on technical documents; identifying edge cases and ambiguous areas specifications, and helping to make them more robust and comprehensive.

I collaborated with people in many locations and time zones, especially San Francisco, Melbourne, and the Philippines. As an individual contributor, I worked mostly in Ruby, Typescript, SQL (MySQL variant), Kubernetes, Docker, Google Cloud and AWS. I took a special interest in improving our product security and stability. By identifying problem-gaps, and proposing and implementing solutions, I helped the Zendesk engineering community to make clearer decisions, simplify the product, and save time.

Principal Software Engineer, British Broadcasting Corporation

London, United Kingdom; October 2007 - January 2019

Team lead / tech lead, Media Services team (2009-2018)

Media Services' mission was to handle all of the BBC's online audio and video. Most notably, this means the BBC's live and catch-up TV streaming service "iPlayer", as well as iPlayer Radio.

Around 2011–2013, Media Services underwent a major transformation: our product went from being an unmaintainable, unreliable, on-site database-driven Perl monolith, to a smoothly-functioning scalable collection of **message-driven microservices** written in **Java** and hosted in **AWS**. As part of this, we re-learned how create and deliver software, adopting a continuous delivery approach.

Along the route, we pioneered the use of the cloud for a major BBC service, delivered BBC iPlayer content onto a delivery partner's platform, and provided unprecedented live and ondemand online video for the London 2012 Olympic Games.

Throughout this time, Media Services was composed of three agile teams, one of which was led by me. My work included people management, scrum leadership, technical leadership, and day-to-day team guidance; coaching and mentoring my individual team members; working with our lead architect to arrive at a robust design; communicating the vision to the team; planning and refining; and as much as possible, also being an individual code contributor.

Other work

At various times, I was also my department's development environment sysadmin; I worked on the "/programmes" project, publishing one page for each BBC programme using a standard, automated publishing pipeline based on **Ruby on Rails** and **Perl**; and I coached a scrum team for 3 months, acting as a "guest" principal engineer, helping start the team in the right direction, improving scrum efficiency. Crucially, I provided guidance to the team's other principal engineer, who would carry on after I had left.

I delivered many effective and engaging **presentations**, in various contexts and to various audiences: anything from 5 minutes to 50, 5 people to 200; internal to my team, or my department, or all of BBC engineering, or external / public. I was asked to speak at BBC open days, tech summits, recruitment days, and more.

Programmer, Power Internet

Milton Keynes, United Kingdom; December 2000 - September 2007

Power Internet was an established Internet service provider, and also provided bare metal server hosting and bespoke web site development. The code was almost always in **Perl** with **MySQL**.

I pioneered the creation and use of well-built, well-tested reusable library code between projects, thus improving code security, speed of development, and portability of programmer skills between projects. I also promoted product security via improved validation, careful encoding, and so forth.

Because this was an ISP, while here I learned much more about protocols: the IP stack, SMTP, IMAP, RADIUS, DNS, HTTP, SSH, and many more. A colleague and I redesigned and rebuilt all of our core application services (DNS, web, mail, etc) for high availability and ease of operation.

I single-handedly created a support ticketing system, adopted by our customer support team; and then went on to create a series of sources-of-truth for various internal data sets. Circa 2005, the company launched their flagship B2B product, providing businesses with high-availability high-speed WANs. I responsible for all of the software behind the product, including web-based management and administration, and real-time network monitoring and connection control.

Developer, Radius Retail

Milton Keynes, United Kingdom; September 1998 - December 2000

Creating software for use by retailers.

Working in **C**, **SQL**, and **Perl**. All software had to work equally with various database / OS combinbations: **Informix** (on *nix), **Oracle** (both on *nix and Windows), **MS SQL Server** (on Windows). A major part of my work was on the back end, writing batch processing in C/SQL, and then later on software to ingest data from the original product, into a data warehouse.

Junior Developer, Computer Sciences Corporation

Bedford, United Kingdom; July 1995 - September 1998

CSC (these days known as DXC Technology) was a large US-based multinational consulting and services company. At their location in Bedford, they handled their contract with Autoglass, an automotive glass repair and replacement provider. At CSC I used VMS/DCL, V-Test, SQL (initially an Ingres database, later also Informix and Oracle 7), and C with embedded SQL. I became the site expert in using V-Test for load testing, and in batch processing across multiple databases. I learned about SQL performance and database administration for both Ingres and Oracle, and also started to use unix and learn the shell.

Returns Handler, Watford Electronics

Luton, United Kingdom; July 1994 - July 1995

Watford Electronics was a retailer, principally of PC software and hardware. My role was to handle items returned by customers, checking the items for failure and sending the items to the manufacturer or warehouse as appropriate.

Further details

LinkedIn: https://www.linkedin.com/in/rvedotrc/

GitHub: @rvedotrc

Residence: Copenhagen, Denmark

Right to work in Denmark: yes

Nationality: United Kingdom Languages: English: native;

Danish: fluent (CEFR C1)

References available on request