Karim RATIB ([karim.ratib@gmail.com](mailto:karim.ratib@gmail.com), [Blog](), [GitHub](), [Drupal]())
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CURRICULUM VITAE

I'm a **software professional** with a strong background in **computer science** and **extensive experience** delivering software. I am particularly effective at (and thoroughly enjoy) **solving problems**, **architecting new systems**, **maintaining and enhancing legacy systems**, **leading development teams**, **integrating** with the **open source ecosystem** and last but not least **crafting beautiful code**.

I am looking to contribute to organizations that **embrace the values of the Common Good**: cooperation, openness, continuous improvement, community involvement. My **preferred application domains** include: Music and audio technologies, Arts and culture, Social development and civic engagement, Education.

Technically, I am familiar with a wide array of software technologies but I am partial to the **Linux platform**, running **multi-tiered**, **API-driven**, **component-based** applications that are delivered through the **Web**. My main interests revolve around **information modelling and processing**, including content and knowledge management, collaborative work, information indexing and retrieval, computational linguistics. My teams and I have **contributed code and documentation** to all the open source systems that we've used.

N.B. No part of this CV was generated or enhanced by GenAI techniques.

WORK EXPERIENCE

**2022 – Present: Senior Developer / Solution architect, [Quartech](#)**
I architect the web applications portfolio for the Ministry of Post Secondary Education and Future Skills, Government of British Columbia. This includes building and maintaining the [WorkBC.ca](#) site and its ecosystem of microsites and API services.

My role as senior developer / solution architect involves the following:
- Manage the technical team, which typically consists of a mix of employees and contractors with heterogeneous skillsets
- Manage the technical backlog by analyzing and estimating tickets, planning the implementation with technical team members, reviewing the implementation, compiling release notes
- Produce solution designs and architecture documentation
- Build, code, develop, deploy prototypes and full features
- Analyze and measure application performance and design impactful enhancements
- Coordinate product design and specification activities with the product owner
- Coordinate project management activities with the project manager
- Coordinate systems engineering activities with the Ministry's infrastructure team
- Provide longer-term strategic recommendations at the technical level
- Train business users on the delivered solution and prepare training material

All our work is open sourced, as mandated by the Government of British Columbia. Some representative projects on GitHub:
- [WorkBC.ca](#), a massive Drupal 10 site running on AWS / RDS / PostgreSQL / Solr
- [Single Source of Truth API](#), a read-only data service for government statistical data
- [JobBoard](#), a .NET API service and Angular front-end that aggregates and indexes province-wide job opportunities

**2020 – 2022: Engineering contractor**
I worked on several short- and medium-term contracts over this 2-year period, to satisfy my interests and utilize my skills where I can provide value:

**Drupal architect, [Quartech](#)**
Working on a project for the Government of British Columbia, Canada.
Technologies: Drupal, PHP, PostgreSQL, AWS, Docker, git

**Engineering contractor, [Internet Archive](#)**
Internet Archive is one of the cornerstones of the modern Internet. I was thrilled to be offered a position to join the [Wayback Machine](#) team as engineering contractor. My role in the Wayback Machine team involved the following:
- Align the team's technical activities with the product goals
- Help the team plan and execute on technical projects to reach production
- Participate in creating, maintaining and enhancing the team's software systems across the full stack
- Assess, document and enhance the team's engineering practices
- Increase collaboration and knowledge transfer between team members and with other Internet Archive teams

Technologies: Python, React, Nomad, Kafka, Docker, git

**Technical advisor, [Labyrinth Online](#)**
Helping this online music course organization setup their technical infrastructure.
Technologies: Node.js, AWS, Wordpress, Airtable, git

**Web Audio developer, [Newzik](#)**
Delivering a Web Audio and MIDI multitrack player for this company's [online music collaboration platform](#).
Technologies: React, Web Audio, MIDI, git

**2011 – 2020: Engineering manager, [Meedan](#)**

I was initially hired by this US non-profit as a software contractor, but was soon offered the larger position of directing their engineering effort. My job involved the following:

- Manage the software development process with a geographically distributed team of ~10 members
- Plan system features with the product team, in terms of feasibility, prototyping, effort/time estimation, scheduling, ticketing
- Manage the implementation of system features with the software team, including selection of appropriate components, planning implementation strategy, code review, software testing, troubleshooting, and occasional coding
- Select and manage software development tools (bug tracking, version control, deployment tools, etc.)
- Manage system operations (hosting, performance, monitoring, backup, etc.)
- Build an [open source community](#) of developers around Meedan technologies

Over the course of this work, I managed the design and delivery of several exciting applications, including:

- **[Check](#)**, a microservice-based collaborative social media verification application. This application is in active use by digital journalism newsrooms all over the world, including two [award-winning](#) [teams](#) at the 2017 Online Journalism Awards.
- **Bridge** (retired), a collaborative social media translation application – deployed to multiple partners including [National Geographic](#).

Technologies: React, Ruby on Rails, Sidekiq, Python, Node.js, Drupal, PHP, Apache Storm, Facebook API, Twitter API, Slack API, WhatsApp API, GraphQL, PostgreSQL, Elasticsearch, MySQL, Redis, AWS, Docker, GitHub CI, Travis CI, Jenkins CI, git

EDUCATION

**M.Sc. Computer Science, Université de Montréal, Canada**
- Recipient of Bourse de la Francophonie scholarship whereby the full program tuition was generously provided by the Canadian International Development Agency.
- Studied at the computer graphics lab under the supervision of Prof. Pierre Poulin.
- Master's thesis: Multi-level volumetric textures for the rendering of complex scenes.
- Graduated with an A average GPA.

**B.Sc. Computer Science, American University in Cairo, Egypt**
- Minor in Mathematics and Physics.
- Graduated summa cum laude.

GENERAL INFORMATION

- French / Canadian citizen
- Based in Vancouver, British Columbia, Canada (UTC-8)
- Languages: French, English, Arabic, Portuguese