



# Jacob Ashdown

Technical Lead with experience architecting apps from inception to production. Full Stack Engineer since 2010 working in Typescript, PHP, Ruby, Python. Engineering Manager building road-maps, managing work-streams, mentoring, line managing and business needs. Scrum Master focusing on continuous improvement and rapid delivery. Dual UK and EU National. See my [Github profile](#). References and more code examples available on request.

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## Education:

**2010 - MSc in Internet Systems and E-business** - Durham University - Java, Ruby, Project management.

**2009 - BA in Politics, Philosophy and Economics** - 2:1 - Durham University - Focus on Economics and Philosophy - in particular econometrics and philosophy of science.

## Additional Qualifications

**Scrum Certification - Scrum Alliance** - May 2022

**Online Courses in GIS and Remote Sensing** - Lund University and University of Twente - 2019 - 2020

- **Introduction to GIS** – 15 ECTS credits: Acquired knowledge in GIS software and analysis, in particular ArcGIS.
- **Introduction to Remote Sensing** – 10 ECTS credits: Gained skills in remote sensing technologies and applications, ERDAS, ArcGIS.

## Professional Experience:

**October 2016 to October 2023 - [Viamo.io](#) - Multiple roles - Kinshasa, Khartoum, London, Remote**

**March 2022 to October 2023 - Technical Lead and L1 Engineering Manager, Web Apps crew**

- **Led the development of a new application to facilitate the creation of digital training courses delivered via IVR** . The application is aimed at improving efficiency and standardization of course creation and data collection across training projects. It reduces setup time and potential user errors.
- Gathered the requirements for this streamlined digital training creation app, This involved learning from and building on existing best practices and processes for the very labour intensive manual creation of trainings that was happening previously. Once the problem domain was well understand we could build our initial roadmap for an MVP and then iterate on this as we went using agile methodologies. **This was a large project that I managed from inception to production release.**
- Used **Laravel, Vue 3 with Typescript and GraphQL** to construct a standalone domain focused application to enable our project implementation teams to quickly build custom IVR trainings for clients in the international development sector. This allowed us to **abstract away the core platform to a pure communication layer** and therefore **cleanly encapsulate the business logic** around delivering training courses.
- **Managed and mentored two senior engineers**, ensuring timely and quality delivery while providing career growth opportunities.

**August 2020 to February 2022 - Technical Lead, [Flow Interoperability Project](#)**

- Led the creation of the [Flow Builder](#) as part of the flow interoperability initiative. The Flow Builder is a tool for authoring JSON-based “flows” which meet [the flow content standard](#). This standard enables a common interactive experience across different communication platforms. Development was **funded by USAID with UNICEF partnering**.
- In the first stage of the project I spearheaded the tool’s development in **Vue.js and TypeScript**, focusing on customisability for vendor platforms while maintaining compliance with the core spec. In the second stage I architected and coordinated the integration of the tool with Viamo’s existing systems.
- Throughout this I **managed a team of 3 engineers**, employing **agile methodologies**, advising on best practices and **building the roadmap** of the project’s open-source and in house elements.

### March 2019 - July 2020 - Technical Lead, Core Product

- **Architected, planned and participated in the development of vital features** for the core platform. This included weather notifications, issue tracking, a referrals system, numerous API integrations and more.
- The core platform consists of a multi-tenant cloud SaaS platform which communicates over a **complex queue setup** with a series of in country servers colocated with MNO data centers. The **networking and data consistency challenges** of this system are considerable, especially given the intermittent connectivity between the cloud node and the delivery nodes and this had to be kept in mind during all feature development.
- **This platform serves over 12 million unique subscribers** in 20 countries via **IVR, SMS, USSD and Social Messaging**.
- **Line managed and mentored engineers** and fostered their professional development. Led and managed projects and collaborated with designers and product managers to ensure user needs were always at the center of our work.

### March 2018 - February 2019 - Technical Lead, Custom Applications Team

- **Managed the team of 3 junior engineers** responsible for building custom **data collection and analysis tools, handling project planning, requirements gathering, and client communication**.

### October 2016 - March 2018 - Senior Full Stack Engineer, Custom Applications Team

- Developed custom **ETL pipelines and data visualization** apps, strengthening data-driven decision-making for clients using **Laravel, Vue.js, and chart.js**.

## September 2013 to October 2015 - [GOV.UK](#) - [Government Digital Service](#) - Cabinet office - Developer - London, UK

Built dashboards to [show the performance](#) of over 800 services provided by the UK central government, this involved:

- Building data collection systems and microservices for performance data using **Python, Celery, Django, Flask**.
- Building a graphing and data display system in **D3, Nodejs and Backbone.js**.
- Built a detection and alerting system for poor performance.
- Worked on **designing clear and actionable metrics** through iteration and **user research** (including lab research).
- Worked with departments throughout government to **change culture and make sure new services were designed and iterated with constant reference to the data**.

I also had duties which involved technical support for the everyday operation of one of the most used websites in the UK - [GOV.UK](#). This included **in and out of hours support - monitoring errors, fixing bugs, diagnosing problems and maintaining the every day operation of the site**.

## August 2011 to September 2013 - [Funding Circle](#) - Developer - London, UK

- As the 3rd engineer and Funding Circle I contributed to scaling the platform by **transitioning legacy PHP systems to Ruby on Rails** and building financial tools for real-time user transactions. I helped build the first bespoke loan application processing and CRM system and I contributed to the development of risk models by helping set up the Big Data storage solution with **Cassandra and Elasticsearch**.

### Other experience:

- **2010 to 2011 - Spoonfed media - Junior Developer** - Developed and maintained features for the events listing platform including extensive work on a web crawler and scraper to aid event publication.
- **June to September 2010 - [Engineers Without Borders](#) slum data mapping placement for Shelter Associates - Pune, India** - Worked on urban poverty mapping and developed GIS tools to support urban planning initiatives.

## Interests:

- Interested in the use of GIS and remote sensing to address environmental problems with experience of **ArcGIS** and **ERDAS** through a joint programme and Lund and Twente universities.
- Experiments in **React, Rails, RXDB, Apollo and GraphQL** to build an offline first app with the intention of integrating the full suite of PWA features.
- Experience prototyping apps in **React native** for cooking and language learning.

## Quotes about working with me:

- “In brief, Jacob stands out as one of my most esteemed managers, embodying qualities of compassion and unwavering support. His prowess extends beyond management, as he is a highly skilled full-stack developer with extensive experience leading developer teams and serving as a Scrum Master.”
- “[Jacob] understands how to manage large, complex tasks; prioritize; and keep focus on product goals in the different aspects of our work.”
- “Jacob’s meticulous approach was evident in his clear and detailed notes for each ticket, specifically tailored for developers. These notes not only clarified the ‘Acceptance criteria’ of a story but also served as excellent templates for crafting well-structured tickets.”
- “Jacob is a model of professional effectiveness: Responsible, proactive, strong on communication, high on ownership and responsibility, collaborative, organized, and motivating + supporting the team through big goals, challenges, and deadlines.”
- “I really value Jacob’s level-headed contributions to both technical and product propositions. He understands the value of what we do, but isn’t afraid to challenge it to ensure we are doing our thinking properly.”
- “[Jacob] is really capable when it comes to starting discussions about a given task ... when it comes to something new - he’ll take an idea and work it into code through a series of conversations that leave the whole thing clear to the rest of the team.”
- “Jacob is a remarkable professional, excelling not only as a manager but also as a mentor and developer. His compassionate leadership style and dedication to fostering a supportive work environment make him an exceptional asset to any team.”
- “[Jacob] has a talent for doing code review. He’ll double check code makes sense, rather than simply assuming that because tests pass, a pull request is in an acceptable state.”
- “My bi-weekly one-on-one meetings with Jacob were truly enjoyable and enlightening. As a manager, he demonstrated a holistic approach by prioritizing not just work-related matters but also my overall well-being.”
- “His maturity, ability to listen to all points of view and ability to really understand perspectives he doesn’t agree with are, in my opinion, exactly what we should be looking for in leadership roles.”

## Technologies and Practices:

- **Languages:** PHP, Typescript/JavaScript, Ruby, Python, NodeJS...
  - **Frameworks:** Laravel, VueJS 2+3, React, Rails, Sinatra, Django, Flask, Express.js, React Native...
  - **Delivery:** Agile environments, Kanban, Scrum (certified), XP, TDD, BDD, pair programming, user stories, pull requests, Trello, Jira...
  - **Databases & Queues:** MySQL, PostgreSQL, BigQuery, MongoDB, RXDB, Elasticsearch, Redis, RabbitMQ, SQS...
  - **Testing:** PHPUnit, Jest, Rspec, Nose, Storyshots, Cucumber, Behave...
  - **CI/CD:** Jenkins, Travis, Bitbucket Pipelines, Github Actions...
  - **Frontend:** TailwindCSS, Bootstrap, Accessibility with ARIA tags, Storybook, Design systems, Chromatic...
  - **Devops:** Capistrano, Docker, Dokku, AWS, Loggly, New Relic, Sentry...
  - **Integrations:** Google, Facebook and Amazon APIs, Twilio, DHIS2, EarthNetworks, SOAP, SMPP for SMS, USSD, IVR, Whatsapp, ODK, GraphQL, Mobile banking...
  - **Code Quality and Style:** PEP8, JSLint, Code Climate...
  - **Data Analysis:** Regression analysis, hypothesis testing, risk and poverty modelling, Looker/Google Data Studio, ArcGIS, ERDAS Imagine...
  - **AI:** OpenAI assistants, TTS and STT...
  - **How I Work:** Vim, Tmux, Bash, Git, Ubuntu, TDD where appropriate, Copilot, LLMs where appropriate...
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