



transportapi

Lead backend engineer

Role outline and job description

GENERAL DISTRIBUTION

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1 Who are we?

TransportAPI is a rapidly-growing, investor-funded business, currently expanding our core tech team to meet the demand for API-powered transport information and analytics. Our platform has Britain's public transport timetables, live departures, routes, places, and journey planning. Our managed services power transport information screens in the mobile apps and websites for two of the top five transport operators in Britain, First Group and National Express, as well as Heathrow Airport. We work on joint projects with transport authorities such as Transport for West Midlands and Transport for the North (where we run the Open Data Hub). More than 8,000 developers have signed up on the platform including BT, Astra Zeneca, IKEA, Snowdrop, Liveposter, Screenreach, ELGIN, Resonate, FWT, Trapeze, Grand Visual and the Universities of Warwick, Lancaster and South Wales.

1.1 What are we about?

Our roots are in the open data community and academia: we've spent lots of time campaigning to get the data we now use. We're now about growing our already sustainable business so that it makes money while also being open. We are not about creating a business built on restrictive licences of content. We are about creating services that add value to the data so our customers can deliver. Our job is to get hold of the data source, sort it out and deliver useful data feeds and analytics at scale. We want to avoid locking, closed data or derived data rights to provide services that can be remixed, reinvented and redistributed by our partners.

1.2 How ambitious are we?

Global expansion of our managed services is on the roadmap. We started in the UK - that is where the most open data is right now - but we want to expand our platform to all countries that open their transport data, over time. We know that transport data will become embedded in everything and our platform will provide the feeds to power apps and services. This will continue to drive a wave of innovation around travel information, benefiting both travellers and operators. So, the plan is global domination by making ourselves indispensable to transport operators, transport hubs, app developers, hyper-local media, local authorities, regulators, campaigners and anyone else who needs us.

1.3 What are we like?

As a team, we work remotely, and have a culture of collaborating to maximise group-throughput. Transparency and clarity of communication are crucial for us.

We adopt an agile approach to management and development to ensure we are all on the same page day to day. End to end ownership of tasks and initiatives is key.

Every 6 months we all meet up for a few days to review, iterate, and plan for the future.

In our toolbox we have:

- Ruby and Ruby on Rails
- PostgreSQL (running on AWS Aurora)
- Chef for configuration management
- Terraform for infrastructure-as-a-code
- AWS, as everything runs on it
- Haskell, Elixir and Go for specific purposes
- ELK and a 3rd party managed monitoring platform for observability

1.4 Working practices

We practice lean and agile software development but we try not to fall victims of a cargo cult - to ceremonies, buzz words, hypes and fads... and to just do something because it's written in a book or because the others are doing it.

To us, lean and agile has tangible meaning - react to customer demands and changing market needs quickly, optimise the throughput of the whole system but not individual parts of it, relentlessly identify and eliminate bottlenecks and wasteful activities.

Currently, we use Kanban in its true spirit - to try to keep the work in progress low and push the tasks to completion as quickly and efficiently as possible.

2 What do we offer

- Interesting job, offering a wide variety of challenges, both in the business and in the tech domain
- Excellent remuneration package
- Good work-life balance
- Flexible working schedule
- 25 days of paid annual leave
- Ability to work fully remote or on-site at our offices

3 What you bring to the role

3.1 Your Abilities and Attitude

Essential

- Being flexible and working in a team: collaborating with colleagues having a wide range of backgrounds and approaches.



- Working in a distributed manner: we're spread across several countries and timezones and take a very distributed approach to work but we also have physical offices and some of us interact with each other f2f on a regular basis.
- Taking initiative and ownership into identifying problems in the code and infrastructure, improving processes and proposing solutions.
- Can manage complex tasks associated with collaborative solution development.
- Can manage workloads, solve problems and work independently.
- A pragmatic mindset: write good code and build stable infrastructure while meeting deadlines. Know when it's worth to accrue a bit of tech debt to achieve the higher goals and when it's the right time to repay it.
- Can see our work from the client's point of view as well as our own.

Desirable

- Ability to represent the company and its projects externally to clients.

4 Job description

4.1 Responsibilities

You will lead the core development team at TransportAPI, specific responsibilities would include:

- Participating in the API design of both the existing and the new endpoints
- Designing, implementing and using internal backend libraries
- Developing and improving the internal tooling for streamlining data ETL, operations, deployments and the related DevEx processes
- Keeping the quality bar of the internal codebases high
- Taking initiative and ownership of identifying problems in the code and infrastructure, improving processes and proposing solutions
- You build it, you run it - end to end ownership from feature inception, through development and deployment, to smooth operation in production
- Mentoring and developing more junior team members
- Participating in the hiring process
- Reporting to Head of Engineering and tightly collaborating with all other engineering staff
- (bonus) Representing the company and its products externally to clients

4.2 Experience and skills sought

Essential

- Outstanding experience of backend development in Ruby and Ruby on Rails
- Solid experience with relational databases database design, debugging, monitoring, optimization, preferably PostgreSQL
- Experience in "you build it, you run it" environment



- Writing solid, clean, reusable, modular and well-tested code with clear and well-thought-out design
- Writing clean new code is essential, as is working with legacy code: refactoring, improving, breaking up into reusable components.
- Experience with AWS: mainly EC2 (+ load balancing primitives), RDS, CloudWatch
- Writing observable code, always having in mind how you will operate it
- Writing code collaboratively via GitHub pull requests, code reviews, code style guides, pair programming, etc.
- Development of scalable and resilient web services and APIs reliant on large dynamic databases
- Working in a distributed manner, with colleagues on multiple time zones and with different cultural backgrounds. Clarity of communication and punctuality is a must, every ambiguity has a price
- Managing complex tasks in a complicated domain associated with collaborative solution development
- Exposure or interests in functional programming

Desirable

- RESTful API design and development experience with JSON
- Experience with large scale distributed systems
- Spatial data, spatial analysis, GIS tools (QGIS, PostGIS)
- Experience with Haskell and/or Elixir
- Experience with configuration management frameworks (Chef, Puppet, Ansible)
- Experience with infrastructure-as-a-code frameworks (Terraform, CloudFormation)
- Web service architectures: load balancing, failover, message brokers, managed services
- System administration: servers, networks, optimisation, performance testing and monitoring

To apply send your CV and expression of interest to jobs@transportapi.com