

## Role Description

### Senior Software Engineer January 2025

#### Role Purpose:

Open Plan exists to help organisations collaborate and coordinate the delivery of large infrastructure projects, based off our first-hand experience with the Christchurch and Kaikoura earthquakes. Using the power of purposeful collaboration together with data-driven spatial systems, we help transform the experience of infrastructure delivery – in service of the communities in which we live.

We have a clear vision to build services and technology that is used by stakeholders in the built infrastructure sector for planning and coordination. Our vision extends to providing these services in the context of disaster recovery and climate change adaptation. We are therefore looking to build a team of likeminded people who are looking to make a difference with the skills and experience they have.

Open Plan has two focus points. The first is providing advice and analysis to largely public sector clients in relation to large infrastructure programmes. The second is a unique role as the managing agent for technology owned by Digital Built Aotearoa Foundation. This includes the National Forward Works Viewer (NFWV) and the NZ Underground Asset Register (NZUAR). NFWV is a national authoritative repository of planned infrastructure works that allows our stakeholders to plan and collaborate.

In this role of Senior Software Engineer you will have the opportunity to support technology products which are without precedent or parallel in Aotearoa and beyond. With your help we will extend the breadth and depth of the technology and help scale our operations throughout the infrastructure sector.

This position also represents an opportunity to grow the scope of Open Plan and the expertise that it provides to stakeholders, particularly DBAF. You will work independently reporting jointly to the Principal Software Engineer / Solution Architect and Managing Director.

The role requires a broad spectrum of skills including software engineering expertise and the ability to disseminate complex technical problems to non-technical stakeholders. You will also advocate strongly for the end-user through best-practice UI / UX.

#### Responsibilities

The responsibility of this role is to support development and operation of technology owned by DBAF and managed by Open Plan. You will work as part of a wider development and technology team that extends beyond Open Plan and includes external contracted developer resources. You will be expected to liaise with the external development team and ensure there is a seamless working relationship. Broadly this role will focus on:

- An understanding and familiarity of the technology architecture
- Development of the core technology products (NFWV & NZUAR)
- Monitoring and management of the technology products and service in the cloud environment
- Development of new technology products and services (such as a geospatial catalogue)
- Development and management of data pipeline infrastructure
- Building a relationship with the wider development team, Product Manager and end-user stakeholders

As part of the development team you will be involved in different major workstreams including:

- Build, test and deploy our product backlog
- Back end development
- Front end development
- Maintaining the API used by our partners organisations
- Maintaining and updating relevant documentation

Must-Have Qualifications, Skills & Experience:

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Respond with CV to [angus@openplan.co.nz](mailto:angus@openplan.co.nz)

Or call Angus on 021 049 3219

- Computer Science degree or qualification or extensive experience demonstrating an understanding of computer science
- Minimum of 4 years of commercial web or applications development experience
- Excellent communication ability, both written and verbal
- Exceptional attention to detail
- Ability to learn new technologies as required by the role
- Experience developing in cloud native environments

The following represents the technology that you will be experienced in (or will become experienced in shortly after taking the role):

- Spatial data, spatial data models and spatial data formats and data services
- Continual Integration – Continual Development (CI / CD)
- Kubernetes
- Python / Django
- React
- PostGIS
- Geoserver
- KeyCloak
- Airflow

## **Broad Focus**

You will be actively involved with liaising with clients and stakeholders of Open Plan. We believe that we build better technology when our clients can speak directly to the developers of the technology.

## **Core communication and personal skills**

- Presentation of technical and complex material to non-technical stakeholders
- Liaison with other technical subject matter experts
- Ability to summarise technical discussions and instructions into clear actionable tasks
- Drafting of technical documentation
- Contribute to complex technical discussions and be a confident advocate for the best engineering outcomes

## **Technical requirements**

- Strong technical software engineering skills as outlined above
- Willingness to learn new techniques, processes and systems
- Stakeholder liaison through outcome-focused workshops and meetings
- Support our business analyst and engagement personnel to gather end-user and stakeholder needs and requirements

Specifically for digital tools we manage for Digital Built Aotearoa:

- Understanding of how these tools support the delivery and management of civil infrastructure
- Participate in development design process to create better outcomes and tools for our clients
- Advocacy for adoption of tools for the programme and clients we work with

## **Support Services**

- Support the Open Plan team with on-boarding of stakeholders to the digital tools we manage
- Support the Open Plan team with the service desk function we operate (offered for NFWV and NZUAR)

## **Writing skills**

- Ability to create technical documentation, technical scopes and technical reports
- Production of technical presentation material

**Proposed Attributes:**

- Ability to work independently and remotely
- Ability to proactively contribute as part of a technical software development team
- Great communicator – proactively communicating with all team members and stakeholders
- Confidence in advocating for the best engineering outcome

**Training, CPD & mentoring:**

- This role will require a breadth of skills and therefore a continual professional development (CPD) plan will be essential to the success of this role.
- An agreed CPD plan, drafted by the you, covering the first 12-18 months of this role is an expected deliverable at the outset (within the first month). Open Plan is committed to supporting you in your professional development.
- Within this role you will have the opportunity for mentoring in areas where you have a specific interest. Where expertise does not exist within Open Plan, we will support you to access mentoring externally.