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Portfolio Project Expectations in Full-Stack Developer Job Postings (React/Node Stack, 2024–2025)

Introduction & Summary of Findings

Employers hiring junior to intermediate full-stack developers (especially in Toronto, Vancouver, and Montreal) increasingly expect candidates to **showcase portfolio projects or technical demos** that align with their tech stack and domain. In recent 2024–2025 job postings for roles using **React, TypeScript, Node.js, and PostgreSQL**, many companies explicitly request a link to the candidate's **portfolio or GitHub** and implicitly look for certain types of projects. Common themes include **web applications with e-commerce features, data-driven dashboards, and real-time interactive functionality**, as well as evidence of best-practice engineering (testing, security, scalability, etc.). Candidates are often asked to provide code samples or personal project links, and job descriptions hint at the **project experiences** that employers value. Below, we detail the project types and technical features most frequently mentioned or implied, with examples and recurring patterns from over 50 recent job postings.

Portfolio Projects Explicitly Requested

Several postings explicitly instruct applicants to submit a portfolio or examples of past projects. For instance, an intermediate full-stack role at RxFood asks for "a link to your portfolio or GitHub profile" in the application [1]. Similarly, a UI/Web Developer opening in Toronto directs candidates: *"Please include portfolio in your resume and feel free to include any examples of previous websites, apps, or software that you have developed."* [2]. Employers want to **see working projects** that demonstrate your skills with the required stack. In practice, this means providing links to live applications, GitHub repositories, or other demonstrations of relevant work. A senior full-stack posting at Planitar (Waterloo) even lists a GitHub/GitLab link and open-source contributions as "additional assets" that strengthen a candidate's profile [3]. These examples show that beyond your resume, **having tangible projects to show is often expected**.

What kinds of projects do they expect? Explicit clues come from domain-specific roles. For example, a Vancouver job titled "Web, App & e-commerce Developer" emphasizes experience with **online stores** (customizing Shopify) and **web/mobile apps**, and asks for a resume and **portfolio submission** via email [4] [5]. This indicates that for roles touching e-commerce, employers love to see portfolio projects like **shopping cart applications or payment-integrated sites**. In general, postings using the React/Node stack tend to value full-stack web applications that mirror real-world products (e.g. e-commerce platforms, SaaS dashboards, social or interactive apps) rather than trivial demos.

Implicitly Preferred Project Types

Even when not explicitly requested, many job descriptions hint at **preferred project domains** by listing the experience and skills they value. Analyzing these reveals a few recurring project themes:

- **E-Commerce Platforms & Web Portals:** If the company or role is related to retail, finance, or other B2C services, they often mention e-commerce or transaction handling. For instance, Lightspeed (a Montreal retail tech company) seeks developers to *"help merchants sell their inventories...with high flexibility"* [6] – implying that experience with **online marketplace or shopping cart projects** is relevant. The Techtee posting explicitly requires a *"solid understanding of e-commerce platforms, particularly Shopify"* [7]. **E-commerce projects** in a portfolio (even a simple online store or Stripe payment integration) demonstrate handling of product catalogs, user accounts, payments, etc., which map well to such job requirements.

- **Data Dashboards and Analytics Apps:** Many postings value candidates who have built **dashboards, analytics tools, or admin panels**. These are projects that display and manage data in a user-friendly way. For example, a freelance job ad (not region-specific) highlights *"experience building dashboards, forms, and other data-heavy interfaces"* as a key requirement [8]. Likewise, some Canadian job listings (e.g. in geospatial or IoT fields) note a background with *"real-time dashboards"* or data visualization as a plus. Full-stack roles at startups frequently mention creating internal tools or reports, so a portfolio project like an **analytics dashboard with charts (perhaps using D3.js or similar)** would align well. In the Techtee posting, familiarity with D3.js for interactive charts is listed under front-end skills [9], reinforcing that **visualizing data** is a valued skill.

- **Real-Time Interactive Applications:** Real-time features (such as live updates, streaming data, or chat functionality) are implicitly valued through mentions of WebSockets, event-driven systems, or "real-time" platforms. For instance, one Montreal job ad for a full-stack developer (Huawei Canada) calls for *"real-time platform expertise, including WebSockets (Socket.IO) and high-throughput message buses (Kafka)"* and also expects **data-visualization proficiency** [10]. This suggests that candidates who have built **real-time apps** (e.g. a chat application, live feed dashboard, or multiplayer collaboration tool) will stand out. Even if postings don't directly ask for a "real-time app," knowledge of real-time communication or streaming data is often listed, so portfolio projects featuring **live updates or push notifications** resonate with these requirements.

- **Complex CRUD Applications & SaaS Platforms:** Nearly all full-stack roles expect experience building typical web application functionality – creating, reading, updating, deleting data with a pleasant UI and robust backend. Building a **mini SaaS application or an end-to-end product clone** is great practice. For example, Oncoustics (Toronto) describes their junior full-stack role as building out content management and deployment pipelines [11] – essentially internal CRUD tools. A project like an **admin panel or content management system** (with user roles, forms, data tables) demonstrates the "glue" skills of full-stack development that many postings implicitly seek.

- **Cross-Platform or Mobile-Responsive Projects:** Some postings mention mobile development or responsive design, reflecting the expectation that web apps work on various devices. In the Techtee ad, experience with **React Native or Flutter** for mobile apps is listed [12], and the Jeavensoft description values turning designs into responsive web pages [13]. While not every full-stack job requires building mobile apps, showing that your projects are mobile-friendly or that you've dabbled

in a React Native project can address these points. It demonstrates versatility and a user-experience focus.

- **AI/ML-Integrated Applications (Emerging):** A newer trend (in some 2024–2025 postings) is the integration of AI or machine learning features. For example, RxFood's intermediate full-stack role involves working with an *"AI-powered nutrition platform"* and image recognition ML systems [14] [15] . ShyftLabs in Toronto mentions building *"automation workflows powered by AI (OCR, LLMs, ML models)"* for data processing [16] . While this is domain-specific, it implies that if you have projects utilizing AI APIs or real-time data processing, they could impress employers in cutting-edge companies. However, for most junior/intermediate roles, this is a "nice-to-have" rather than a core requirement.

Project Characteristics & Technical Features Valued

Beyond the general type of project, job listings emphasize certain **technical features and best practices** that your portfolio should demonstrate:

- **API Development and Integration:** Nearly every full-stack posting expects proficiency with building and consuming APIs. Employers want to see that you can design RESTful endpoints and integrate external services. For instance, Zensurance's requirements include *"Experience with RESTful API design and implementation"* [17] . Lightspeed explicitly notes the need to *"integrate our web applications with third-party services and APIs"* [18] . In the Techtee role, one responsibility is *"Integrate third-party APIs and services to enhance functionality"* [4] . A strong portfolio will thus feature projects that call **external APIs (e.g. social login, maps, payment gateways)** or expose a custom API endpoint. If you've built a microservice or used GraphQL, that's even better – some descriptions list GraphQL or microservice architecture as a plus (e.g. breaking monolith into microservices at Lightspeed [19]). **Showcasing API skills** could be as simple as a project where your Node/Express backend serves JSON to a React frontend, or as involved as a microservice that your app consumes.

- **User Authentication & Security:** Handling authentication and authorization is a fundamental part of full-stack apps, and many employers implicitly check for this experience. Some postings explicitly mention it – for example, one React developer role lists *"experience with authentication flows (Auth0, Azure AD, etc.)"* as a requirement [20] . Security best practices (like OAuth2, JWT, password hashing) might not always be spelled out, but a candidate who can point to a project with a **login system, role-based access control, or OAuth integration** will meet these expectations. In essence, **projects that include a user signup/login and protected content** demonstrate competency in an area nearly every production app requires. This also ties into knowledge of secure coding and data protection, which companies highly value (e.g. Techtee mentions optimizing for security as well as performance [21]).

- **Database Design and Efficiency:** Given the focus on PostgreSQL in these roles, employers want assurance that you can model data and optimize queries. Job ads commonly require experience with relational databases; for example, the intermediate role at Zensurance simply states *"Experience with PostgreSQL."* [17] . Portfolio projects should therefore include a **non-trivial database component** – not just a simple single-table setup. Demonstrating knowledge of SQL relationships, indexing, and query optimization is beneficial. Some postings even delve into specifics like *"common table expressions, window functions"* as desired knowledge [22] . Additionally, handling data migrations or using an ORM in your projects shows maturity in back-end development. If any of your projects

involve significant data (e.g. an e-commerce app with orders and products or a social app with users and posts), it will implicitly tick this box.

- **State Management and Complex Front-End Logic:** On the front-end, employers look for evidence that you can build **complex, interactive UIs** beyond basic React usage. A telling clue is Zensurance requiring familiarity with *"Redux/State management tools"* in addition to React [23] . This indicates that projects involving global state or advanced client-side logic (forms, filters, dynamic UI updates) are valued. A strong portfolio might include, for instance, a **dashboard with filtering and charts**, a multi-step form with validation, or use of a state management library (Redux, Zustand, etc.). This shows you can handle the "hard parts" of front-end development such as managing state consistency, performance optimization (avoiding unnecessary re-renders), and perhaps using component libraries or design systems. In one posting, high proficiency with responsive UI and even multi-tenant front-end architecture was highlighted [24] – aligning with building scalable front-end code. In summary, **rich front-end features** (beyond a static page) are important to showcase.

- **Testing and Quality Assurance:** Employers often signal that they expect developers to write tests and ensure code quality. Planitar's job description explicitly includes *"best development practices including continuous integration, test automation, data backup and recovery, etc."* [25] . Another listing cites experience with **Jest or Mocha** as a nice-to-have [26] . This trend means a portfolio full of only hackathon-style projects (with no tests or documentation) might be less impressive. Instead, demonstrating one or two projects with a test suite (unit tests for your React components or API endpoints) can set you apart. Even mentioning in your project README that you used TDD or have CI/CD set up is beneficial. As evidence, a Hexaware job posting for React developers specifically required *"Experience with testing frameworks (Jest, Testing Library, etc.)"* [27] – showing that **knowing how to test your code is a sought-after skill**. In practice, a candidate might highlight that their Node API project includes Jest tests for each route, or their front-end has Cypress/Selenium tests for key flows.

- **Performance Optimization & Scalability:** Many companies expect juniors and intermediates to be mindful of performance (especially since React/Node apps can face efficiency challenges). Phrases like *"optimize applications for performance, scalability, and security"* appear in postings [21] . Lightspeed mentions ensuring the *"highest level of performance and user experience"* for their web apps [28] . To reflect this, portfolio projects should show that you've considered performance – for example, implementing **lazy loading, pagination, caching, or efficient database queries**. If you built an app that handles a sizable dataset or high frequency updates, discuss how you optimized it (e.g. used Redis caching or optimized SQL queries). Micro-optimizations like compressing images or using CDNs in your project deployment can also illustrate this focus. Additionally, "scalability" can be demonstrated by structuring your app in a scalable way (perhaps using a modular architecture or microservices) or deploying it on cloud infrastructure that can scale. While juniors aren't expected to have built systems at massive scale, an understanding of scalability (like designing with a growing user base in mind) is definitely implied. For instance, ShyftLabs notes the use of message queues and connection pooling for performance in their stack [29] – hinting that a portfolio showing use of caching (Redis) or load balancing could resonate.

- **DevOps, Deployment and CI/CD:** A noticeable pattern is that even at the junior/intermediate level, many roles touch on deployment know-how. Job descriptions reference Docker, CI/CD pipelines, and cloud platforms. For example, ShyftLabs describes deploying code via CI/CD with Docker and

Kubernetes, monitoring with Prometheus/Grafana [30] . Planitar lists experience with cloud providers and container orchestration as a bonus [31] . This suggests that candidates who can **deploy their projects to a cloud service (AWS, Heroku, etc.)** or containerize their app have an edge. In your portfolio, it's worth hosting your applications live – e.g. a React/Node app deployed on AWS or Vercel, using a PostgreSQL database on Heroku – to show end-to-end capability. Having a CI pipeline set up on GitHub Actions for running tests on each push, for instance, directly reflects the "continuous integration" practice employers mention. These DevOps skills indicate you can not only write code but also ship it, which is highly attractive to fast-moving companies.

- **Clean Code and Maintainability:** Lastly, the overarching quality employers seek (though harder to quantify) is **clean, maintainable code** – often evidenced by good documentation and thoughtful architecture in your projects. Several postings allude to this, like Oncoustics expecting someone who *"cares about code quality… and knows what it means to ship high quality code"* [32] . Zensurance mentions a *"passion for clean, reusable, and well-structured code"* as a requirement [33] . You can highlight this in your portfolio by following consistent code style, using linters, writing clear README files, and structuring your repos logically. If any of your projects follow an established design pattern or have well-commented code, that will support the impression that you write production-quality code. Contributions to **open-source projects** also reflect well on code quality and collaboration; indeed, Planitar explicitly values candidates who have *"experience participating and contributing to open-source projects."* [34] . So, including a noteworthy open-source contribution or two in your portfolio (even if small) can underline that you adhere to community standards and best practices.

Common Themes & Examples Across Postings

Bringing these findings together, it's clear that companies hiring for React/TypeScript/Node/PostgreSQL roles want developers who have **built something substantial end-to-end**. Simple to-do list apps or trivial school projects are not enough; the **bar has risen in 2024–2025**. Employers prefer to see **projects resembling real applications** – for example, an e-commerce site with user accounts and payments, a dashboard that visualizes data from an API, or a real-time app that involves live interactions. These projects should incorporate important features like authentication, API integrations, database operations, and responsive design.

Another notable pattern is that **domain context matters** for some roles. If a job is in fintech, edtech, healthtech, etc., having a project or internship in a related domain can be a plus. However, even without domain-specific experience, demonstrating the core skills through universally relevant projects (as discussed above) is the priority. Many postings emphasize that they value *"passion for learning"* and the ability to pick up new tools [35] [36] . So, showing growth and variety in your portfolio (not just one type of app) can indicate that you're adaptable – a key trait for junior and intermediate developers.

Crucially, **communication of your project work** is part of the evaluation. Some job ads note that candidates should be able to discuss their projects clearly (for example, an S.i. Systems listing mentions the developer will be in client meetings and *"must be able to be clearly understood"* [37]). This implies during interviews you may be asked to walk through your portfolio projects and explain technical decisions or challenges. Be prepared to discuss how you implemented a certain feature, why you chose a certain architecture, how you handled edge cases, etc. Employers are implicitly checking that you didn't just follow a tutorial, but truly understand your project's ins and outs.

Finally, virtually all postings mention teamwork, agile methodology, and version control – indicating that beyond the code, **collaborative project experience** (like contributing on GitHub or working in a team setting) is valued. If you have any group project or open-source collaboration, highlight what you did and how you worked with others, as this mirrors the real job environment.

Table: Frequently Mentioned Project Types & Features in Job Posts

The table below summarizes the project types and technical features most commonly mentioned or implied in 2024–2025 full-stack job postings (React/TypeScript/Node/PostgreSQL), along with examples from the listings:

Project Type / Feature	How It's Emphasized in Postings (Examples & Requirements)
E-commerce web applications	Frequently sought in retail/consumer tech roles. E.g. postings require familiarity with Shopify or online storefronts, indicating preference for projects like shopping cart apps or payment integrations [4] [7] . Shows ability to handle product catalogs, transactions, and user accounts.
Data dashboards & analytics tools	Many descriptions value experience building **dashboards or admin panels** for data visualization and reporting. For example, jobs call for *"experience building dashboards, forms, and other data-heavy interfaces"* [8] . Skills with charts (D3.js) and interactive reports are a plus. Such projects demonstrate front-end prowess in presenting complex data and back-end skill in aggregating data.
Real-time interactive apps	Some roles prefer knowledge of **real-time features** (live updates, streaming data, chat). Employers mention WebSockets or real-time messaging systems as desirable skills [10] . A portfolio with a real-time collaboration tool or live chat app showcases ability to manage continuous data flow and user interactions.
API integrations & microservices	Virtually all postings expect API experience. Candidates should have projects where they built RESTful APIs or integrated third-party APIs. For instance, job ads highlight integrating external services (payments, maps, OAuth providers) [4] . Knowledge of microservice architecture or GraphQL appears as a bonus in senior roles [19] . Projects exemplifying an API backend with a separate front-end, or a microservice consumed by other services, align well with these expectations.
Authentication & user security	Employers look for implementation of **secure login and auth** in projects. Some explicitly list OAuth/JWT experience [20] , implying that a portfolio project with user registration, login, and role-based access control will be impressive. Demonstrating security best practices (password hashing, protected routes, etc.) in your apps meets this implied requirement for safeguarding data.
Testing and CI/CD practices	Emphasis on code quality means **tested and maintainable projects**. Job postings frequently note test automation and CI pipelines as part of the dev process [25] [27] . A standout portfolio will include evidence of unit or integration tests (e.g. a test folder in the repo, or badges for CI builds) and mention of using tools like Jest, Mocha, or CI services. This signals that you can ensure reliability in software – a trait employers explicitly seek.

Project Type / Feature	How It's Emphasized in Postings (Examples & Requirements)
Performance & scalability optimizations	Common theme across postings is ensuring apps are **fast and scalable**. Employers mention optimizing performance (both on the front-end and back-end) [21] and building systems to handle growth (scalable architecture, efficient queries) [38] . Projects where you've implemented caching, optimized database calls, or load-tested for performance will illustrate this capability. Even noting use of techniques like lazy loading on the front-end or indexing in the database can reflect the performance mindset that job descriptions call for.

Conclusion

In summary, recent full-stack developer job postings in Canada (Toronto, Vancouver, Montreal) show a clear preference for candidates who have **practical, hands-on project experience** that aligns with real-world applications. The most valued portfolio projects are those that demonstrate building a complete application with the React/Node/TypeScript/Postgres stack, especially in contexts like e-commerce transactions, data dashboards, or real-time interactivity. Equally important are the technical underpinnings of those projects – clean coding practices, proper authentication, integration of APIs, testing, and performance considerations.
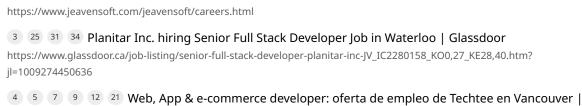
Nearly every job listing analyzed encourages applicants to share a GitHub profile or project portfolio, underscoring that **your personal projects can strongly influence hiring decisions**. Aspiring junior and intermediate developers should curate a few standout projects that collectively tick these boxes. For example, one might showcase an **"Online Shop" project** (demonstrating e-commerce and auth), a **"Data Dashboard" project** (demonstrating front-end charts, state management, and API integration), and perhaps a **"Real-Time Chat" or** "Collaborative Tool"** (demonstrating websockets and live updates), each with full test suites and deployed online. Backing these up with clear readmes and well-structured code will address the qualities employers implicitly check for, like teamwork and code quality.

By aligning your portfolio with the common themes drawn from current job postings – and highlighting those projects during applications and interviews – you significantly increase your chances of convincing employers that you can **hit the ground running** in a React/Node full-stack role. The deep dive into 2024–2025 postings shows that hiring teams aren't just looking for buzzwords; they want evidence. Craft your portfolio to provide that evidence, mirroring the types of projects and competencies detailed above, and you'll be well-positioned for opportunities in today's full-stack job market.

Sources: Recent job postings and company career pages for full-stack developer roles in Canada, 2024–2025 (e.g. RxFood Intermediate Full-Stack Developer [1] ; Techtee Web/App & E-commerce Developer [4] [7] ; Zensurance Intermediate Developer [39] [26] ; Planitar Sr. Full-Stack Developer [3] [25] ; ShyftLabs Full-Stack Developer [40] [29] ; Lightspeed Senior Developer [18] [19] ; Jeavensoft Frontend Developer [2] ; Yagankar freelance posting [8] ; Hexaware/Talent posting [20] [27] ; Huawei Canada job ad [10] .)

[1] [14] [15] Careers – Intermediate Full Stack Developer — RxFood
https://rxfood.com/careers/intermediate-full-stack-developer

2 13 JeavenSoft
https://www.jeavensoft.com/jeavensoft/careers.html

3 25 31 34 Planitar Inc. hiring Senior Full Stack Developer Job in Waterloo | Glassdoor
https://www.glassdoor.ca/job-listing/senior-full-stack-developer-planitar-inc-JV_IC2280158_KO0,27_KE28,40.htm?jl=1009274450636

4 5 7 9 12 21 Web, App & e-commerce developer: oferta de empleo de Techtee en Vancouver | Glassdoor
https://www.glassdoor.es/job-listing/web-app-and-e-commerce-developer-techtee-JV_IC2278756_KO0,32_KE33,40.htm?jl=1009512354921

6 18 19 28 38 Senior Full-Stack Developer (Node.js/React/Golang) - Lightspeed
https://www.lightspeedhq.com/careers/job/senior-fullstack-developer-nodejsreactgolang/7274732/?office=Montreal,%20Quebec,%20Canada

8 24 YaganKar - Experienced React Developer for MVP Development
https://yagankar.com/projects/full-stack-nodereact-developer-for-mvp-development

10 Full Stack Developer at Huawei Canada (Montreal, Quebec)
https://www.itjobs.ca/job/2b0708ec-4abf-400e-99c3-eb2f4c115590

11 32 Junior Full Stack Developer
https://www.oncoustics.com/careers-post/junior-full-stack-developer

16 29 30 40 ShyftLabs - Full Stack Developer
https://jobs.lever.co/shyftlabs/5fb2b13a-7dea-4c63-9467-c58203e71596

17 23 26 33 35 39 Intermediate Software Developer (Node.js/React/TypeScript) at Zensurance | Toronto, ON Job
https://www.opentoworkremote.com/view/1395025

20 27 ReactJS Developer
https://in.talent.com/view?id=a1e5d6c908bb

22 Full Stack Developer Node Js React Typescript jobs - Indeed
https://www.indeed.com/q-full-stack-developer-node-js-react-typescript-jobs.html

36 37 Job postings | REMOTE - Intermediate Full Stack Software Developer to code in React/Next.js, Node.js using Express and Postgres/SQL | Vancouver, British Columbia | S.i. Systems | jobillico.com
https://www.jobillico.com/en/job-offer/si-systemsiJxzWu/remote-intermediate-full-stack-software-developer-to-code-in-react-next.js-node.js-using-express-and-postgres-sql/16294675