Jonathan Lie

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PROFESSIONAL SUMMARY

A software engineer with a full-stack perspective. I intentionally moved from frontend to backend to understand and experience the complete application lifecycle. I thrive on learning new tools, believe in using the right tech for the job, and am currently learning to use AI tools to improve my workflow.

I'm seeking a full-stack or frontend-leaning role in a product-focused company where I can have a direct impact on users.

PROFESSIONAL EXPERIENCE

Software Engineer, Backend - *Ascenda Loyalty, Singapore*   *Jun'21 - Mar'25 (3yrs 10mos)*

- Worked on the orchestration layer, writing integrations for checkout flows that coordinated multiple microservices in a multi-tenant environment.
- Re-architected a large-scale monthly job that processed ~200,000 redemptions. I made the job idempotent and fault-tolerant, which fixed a source of recurring errors and removed the need for manual data patching.
- Built a backend-driven validation system using JSON Schema. This allowed us to define partner-specific form rules on the backend and send the schema to the frontend, avoiding custom code for each new partner.
- Wrote integrations for user checkout flows across multiple microservices. Ensured new features supported our multi-tenant system, allowing them to be configured per-partner.
- Documented several public-facing Partner APIs using OpenAPI. Participated in the team's (8 engineers) weekly on-call rotation, debugging production incidents.

Technologies: *Ruby on Rails, Sidekiq, PostgreSQL, Redis, Kafka, Grafana, Appsignal, MJML, JIRA*

Senior Software Engineer, Frontend - *Ascenda Loyalty, Singapore*   *Mar'20 - May'21 (1yr 3mos)*

- Led a 4-person frontend team, handling sprint planning, code reviews, and 1-on-1 mentorship. I realized through this role that my passion was still in hands-on systems building, which led to my pivot to backend.
- Improved app performance by lazy-loading common components *per-page* and whitelabel-specific components, keeping them out of other clients' initial bundles.
- Oversaw the platform's technical stability, managing the growing complexity of its whitelabel build configurations for ~10 clients.

Technologies: *Angular, Jest, Phraseapp, Rollbar, Browserstack, Trello*

Software Engineer, Frontend - *Ascenda Loyalty, Singapore*   *Oct'17 - Feb'20 (2yrs 5mos)*

- Led the frontend development for "Rewards Dashboard," a new product built in Angular (in a team of 8-10 engineers). I set up the project's architecture, testing patterns, and a scalable whitelabeling system for nearly 10 clients.
- Built the i18n framework, which included writing a script to sync translations with PhraseApp and adding support for complex RTL (Right-to-Left) layouts.
- Built functional prototypes and product demos for the sales team to use in key client pitches.
- Modernized parts of the legacy AngularJS codebase by refactoring large controllers into smaller, component-based modules to make it easier to maintain.

Technologies: *AngularJS, Angular, Mapbox, Jest, Phraseapp, Rollbar, SCSS, Browserstack, Trello*

Software Engineer - *VersaFleet, Singapore*   *Aug'16 - Sep'17 (1yr 2mos)*

- Helped migrate the application's state management from Reflux to Redux, which involved refactoring core components and maintaining backward compatibility during the transition.
- Built features for the 'VersaDrive' React Native app, including a customer e-signature capture and a "slide-to-accept" task UI.
- Built a spreadsheet import feature. This was a full-stack task that required me to write the Rails backend parser and the React frontend for column mapping and error handling.

Technologies: *React, React Native, Redux, Ruby on Rails, Stylus, AWS (EC2, S3), Google Maps API*

Front End Developer Intern - *VersaFleet, Singapore* *Dec'15 - May'16 (6 mos)*

- Led the redesign of the corporate website. Implemented the responsive layout and set up a Grunt-based build process to automate deployments.
- Built foundational UI components for the company's main web app.

Technologies: *JavaScript (ES5/6), Grunt, Bootstrap, React, Reflux*

Software Developer Intern - *Autodesk Asia, Singapore* *Jan'15 - May'15 (5 mos)*

- Built a working touch-enabled AutoCAD prototype with gesture support for desktop PCs.

Technologies: *AutoCAD ObjectARX, Windows Touch API, C++, C#*

EDUCATION

Nanyang Technological University, Singapore *Aug'12 - Aug'16*

Bachelor of Engineering (Computer Science) with Second Upper Class Honours

Udacity, Mountain View, CA *Aug'15 - Apr'16*

Front End Web Developer Nanodegree

AWARDS

ASEAN Undergraduate Scholarship - Nanyang Technological University

No-bond scholarship with full tuition fee coverage and yearly living allowance of S$5,800 for undergraduates.

HOBBIES & INTERESTS

I play a range of musical instruments (guitar, piano, percussion) and use DAWs to produce music. Gaming is also a lifelong hobby, from MMO, RPG, MOBA, racing, to puzzle games and many other genres.