Mark Metcalfe

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Experience

Totara Learning

Senior Software Engineer   Oct. 2024 – Present, Oct. 2018 – Nov. 2021 (4 years total)

I have worked for Totara Learning for four years in total, with my current role being a senior engineer, having started as a graduate engineer seven years ago in 2018. In this role I:

- Led my team through completing critical compliance work
- Proactively collaborated with senior engineering leaders to improve department wide engineering practices
- Led threat modelling sessions with cyber security analysts
- Researched and wrote an architecture whitepaper on agentic AI and how it would fit into the existing product's technology stack
- Mentored and led junior and intermediate engineers
- Led maintaining the primary local development environment and proactively introduced new tooling to improve developer productivity
- Facilitated technical decision-making using decision registers to reach consensus on development approaches
- Architected and developed object-oriented solutions in PHP
- Built front-end views and componentry using Vue.JS and SCSS
- Developed using modern ORM and MVC architectural practices
- Wrote performant and scalable GraphQL APIs
- Introduced modern DevOps practices into our CI/CD pipelines

Toitū Te Whenua Land Information New Zealand

Senior Developer   Oct. 2023 – Oct. 2024

I worked at Land Information New Zealand as a Senior Full Stack Developer for one year. In this role I:

- Developed and maintained features front-end features for our GIS based front-end app using React, TypeScript, Redux, OpenLayers, Cytoscape and other libraries
- Developed REST API endpoints in Kotlin and Java using the Spring Boot framework
- Planned and architected complex new projects and features
- Implemented and upgraded our deployment stack using AWS and Cloud Development Kit (CDK)
- Designed relational database schema and constructed complex SQL
- Wrote integration, unit and acceptance tests to ensure the correctness and maintainability of our code
- Scaffolded a new project with Kotlin and Spring Boot, using best practices in accordance with the programme's target state architecture
- Performed in a Scaled Agile Framework (SAFe) environment
- Demonstrated new features to external customers
- Collaborated with external legacy vendors
- Peer reviewed and tested my colleagues' work

Bank of New Zealand

Full Stack Developer   Nov. 2021 – Apr. 2023

I worked at BNZ as a full stack developer for eighteen months, with a focus on front-end development. In this role I:

- Developed and maintained features front-end features using React, TypeScript, Redux, and other front end libraries
- Developed REST API endpoints in Java using the Spring Boot framework
- Performed in an Agile environment (both Scrum and Kanban)
- Maintained our team's Jenkins pipelines
- Oversaw production deployments
- Diagnosed live production defects using Sentry and Splunk
- Worked with our Business Analysts and Product Owner to triage security issues and technical debt
- Documented vital team processes

Skills

Solution Architecture

I can plan and develop complex features, evaluate technical options, and contribute to architectural decisions across multiple tech stacks

Software Design & Development

I have designed and developed object-oriented solutions, built scalable APIs, and created front-end components using modern frameworks and best practices

Methods & Tools

I have introduced modern DevOps practices, maintained CI/CD pipelines, and implemented tooling to improve developer productivity

Professional Development & Mentorship

I have mentored junior and intermediate engineers, facilitated technical decision-making, and built team capability through knowledge sharing

Analytical & Proactive

I identify areas for improvement - including technical debt - and ensure issues are tracked and addressed rather than left for others to resolve

Team Player

I provide constructive peer review and testing feedback to improve quality and maintain high standards while recognising my team members' efforts

Education

Victoria University of Wellington

Bachelor of Science – Computer Science, History   2016 – 2018

I graduated with a Bachelor of Science, double majoring in Computer Science and History. I learned a broad range of skills and competencies, including:

- Critical thinking, reasoning, and writing skills with extended historical analyses
- Web and mobile development
- Relational database design and interaction
- Object oriented programming in Java

References

Referees available on request