

# Lae Chen

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## PROFILE

I am a software engineer passionate about software craftsmanship, I strive to build systems that are maintainable, performant, and correct.

I'm familiar with the Java space, but have worked with and am interested in working with other technologies—good engineers aren't constraint by their tools, they seek out the right ones to solve the problem.

## EXPERIENCE

### Lead Engineer (Contract), [Te Whatu Ora](#) — Feb 2023–July 2023 (6 months)

Worked with a group of talented people from [Fronde](#) at Te Whatu Ora Health New Zealand, contributing to the [Aotearoa Immunisation Register \(AIR\)](#).

Lead engineer / primary developer of one of the work streams, helped design and build the new national immunisation scheduling system to support the health sector to deliver better immunisation services to New Zealanders.

### Lead Engineer (Contract), [Bakkt](#) — Jul 2020–Dec 2022 (2 years 6 months)

Worked with an awesome team from [Paloma](#) (previously Dovetail) to help Bakkt build their financial services from pre MVP stage to post IPO.

One of the top contributors at Bakkt, and has been praised by Bakkt's stakeholders on multiple occasions for my professionalism and quality of work. This has contributed to Paloma being Bakkt's most valued partner.

Lead engineer, code owner, and member of the architecture group, have led or helped development and design of some of the critical business functionalities, including debit card integration, bank account integration, person to person fund transfers, cryptocurrency buy/sell, and merchant payments.

Also helped smooth the teams' development experience and increase their efficiency by regularly addressing technical debts of the code base, and optimization of the build pipeline such as sharding of all integration tests to different machines for parallel execution to significantly reduce testing time.

### Linux Consultant (Contract), [Phocas Software](#) — Jun 2020–Jul 2020 (1 month)

Helped Phocas in their journey to drastically reduce their infrastructure cost by providing Linux expertise and technical implementation on a database migration project.

### **Senior Software Engineer, P^werFinance — Sep 2019–Apr 2020 (8 months)**

Helped P^werFinance (previously Centrality Fintech) in their early startup stage with product prototyping.

Prototyped secure and privacy centric financial products based on the latest blockchain technologies to help the business verify its business strategies.

Prototyped automated cloud infrastructures that are fault-tolerant, auto-scaling, and multi-regional

### **Senior Product Development Engineer II, Verizon Connect — May 2019–Sep 2019**

Member of the platform team looking after core services.

Migrated services from legacy .NET to .NET Core to enable deployment on Linux to save cost on infrastructures and operations, and to reduce instabilities at the same time.

Implemented new features, built test automation pipelines for legacy services, also fixed complex low level application networking issues that were causing major internal as well as external customer frustrations.

### **Senior Software Engineer, SLI Systems — Aug 2013–Apr 2019 (5 years 9 months)**

Member of the architectural group. Lead engineer of the big data processing/indexing system. Performance focused engineer of the search engine team.

Improved the system's data processing pipeline to speedup processing of large data sources, from hours down to minutes by implementing a delta feed processing system.

Built infrastructure automation tool that will on demand create a multi-node testing cluster in a cloud environment. Enabled easy and safe testing of production changes, as well as enabling different teams to have their own isolated environments for system integration testing.

Built end to end testing framework and automated continuous delivery pipeline from code commit to unit testing, end to end testing, to single button production deployment. Enabled the team to perform rapid testing, as well as production deployment, sometimes as often as multiple times a day.

Built canary testing system to allow new changes to the indexing engine to be tested in production without impacting existing production data, once the changes have proven to be correct, then they can be rolled out instantly. Enabled more rapid and more confident releases of the indexing engine.

Built performance testing tool and pipeline to allow every code change to be performance tested. Enabled easy and reliable performance verification, and has detected numerous significant performance failures before they reach production.

Built an external query caching system for a large client project, doubling the search performance. Enabled the system to meet the client's performance requirements.

Redesigned critical parts of the query engine to improve performance, stability, and reduced resource consumption. Eliminated memory leaks that were causing production instabilities for months.

Containerized the build system and pipelines, resulted in reduced build instability, and improved build reproducibility.

**Intermediate Software Engineer, Orion Health — Oct 2011–Aug 2013 (1 year 11 months)**

Member of the team responsible for the radiology ordering system.

Led the design and implementation of a flexible rule based engine for event scheduling.

Created automated end to end testing frameworks and tests for simulating user interactions, replaced existing labor intensive manual testing, cutting down test time from days to minutes.

Adopted security best practices into the team, resulted in numerous vulnerabilities being identified and fixed before they reach customers.

**Android Developer, Smudge — Nov 2010–Oct 2011 (1 year)**

Helped the company move into the Android market, by developing some of the first official Android apps in New Zealand, including the news app and Rugby World Cup app for Stuff, My Account app for Vodafone, movie app for Flicks.

**Software Engineer (Contract), Arc Innovations — May 2010–Nov 2010 (6 months)**

Introduced automated testing into the system, awarded employee of the month.

**EDUCATION**

University of Canterbury — Bachelor of Computer Science, 2007–2009