

Keith Bauer

onesadcookie@gmail.com

Wellington, New Zealand

+64 (21) 0817 7083

(Te Whanganui-a-Tara, Aotearoa)

I've written graphics engines, compilers, user-facing GUIs, interactive multimedia experiences, bit-level testing of floating-point arithmetic precision, and more. I'm perfectly at home in Swift, Rust, Objective C, C++, Ruby and others, and I can't wait to learn the right tool for the next job.

I find challenge in whatever work I'm doing, and am never happier than when solving a thorny technical problem, or speculating on an elegant solution to a tricky piece of software design.

Employment

ANZ New Zealand

2026–

At ANZ, I'm a Staff Engineer on the goMoney app, specializing in iOS. My responsibilities largely lie with directing larger architectural concerns, but I've also worked on improving build times, implementing a Swift Package Registry, and building out a new real-time networking architecture.

ANZ Plus (Australia)

2022–2026

I was a member of the "Enablement" (platform) team, working on iOS for their brand new mobile banking app and platform. I fixed concurrency bugs, spearheaded work on concurrency-safety so that they can't recur, built a secure cache that respects the bank's data classification architecture, and took point on monitoring and maintaining the stability of the app.

Xero

2014–2022

Software engineer on the Xero iOS accounting app. We grew from a team of 10 to a team of 50, with the associated organisational challenges. We rearchitected the app from MVC to MVVM, rewrote it from Objective-C to Swift, and began the journey from UIKit to SwiftUI.

Apple

2008–2014

Software engineer on Apple's shading language compilers. From 2008–2010 we completely rewrote the existing OpenGL Shading Language compiler to fix intractable correctness issues inherited from 3DLabs' original code. From there, we extended the compiler to support the ever-increasing number of language versions and extensions, including the particularly difficult “precision” feature of the OpenGL ES 2 and 3 shading languages.

[Self-Employed Contractor to] Gibson Group

2007–2008

Lead software engineer for an interactive installation displayed at Te Papa Tongarewa, Museum of New Zealand. The main drawcard was an 18m-long “wall” on which users could interact with user-submitted images & video using Wii-like wands.

Datacom

2006–2007

Software engineer on a major new version of the Reserve Bank of New Zealand's share trading and foreign exchange software. We implemented an automatic compiler/translator from Oracle PL/SQL and Forms to Java/Swing, to port their existing code with perfect feature-parity.

Metservice

2001–2006

Software engineer on Weatherscape XT, a real-time TV weather graphics system designed to run on consumer hardware, as opposed to its precursor which ran only on expensive SGI O2 machines. We used C++, OpenGL, Qt and others. The system was written cross-platform for Mac, Linux and Windows.

Education

Victoria University of Wellington

1998–2001

BSc, Mathematics & Computer Science

BSc with Honours, First Class, Computer Science

My focus was on discrete mathematics and formal methods of computer science.

My Honours thesis involved using the automatic theorem prover PVS to show correctness of various multithreaded algorithms.