

ADAM CLEMENTS

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About Me

I am a skilled software architect and highly creative individual who prefers elegant design over quick hacks. I have frequently been praised for the speed at which I am able to spot neat and non-obvious solutions to difficult problems. I am an active member of the Clojure community and an advocate of functional programming, immutability and value based programming. I am highly proficient with Clojure, C++, OpenGL, Android SDK, Python, Java and others. I relish the opportunity to learn new technologies and always research the appropriate tool for a job rather than restricting the task to what I already know.

I have a keen interest in woodwork and building things (current projects include a fully functioning paper clock). I am an amateur singer/songwriter and play both guitar and piano.

I have a can-do attitude and strive for perfection and elegance in everything I do.

Professional Work

2013-2015 **SwiftKey, Clarity Team Lead**

I founded and led the Clarity project, the aim of which was to build a new core keyboard product and re-evaluate all our basic assumptions about the user experience and tech stack given the benefit of hindsight. Clarity was my vision throughout, on the technical, UX and UI fronts. It's the first major app to be written in Clojure on Android and the development velocity has been phenomenal with a very small team. The product itself has been widely praised for its accuracy, simplicity and ease of use. It has a number of very novel features, some of which are yet to be released pending patent applications and as a result of this project I have personally generated more than 50% of the patents applied for at SwiftKey this year.

<http://gizmodo.com/i-wrote-this-post-on-swiftkeys-fantastic-new-android-ke-1700823672>
<http://adamclements.github.io/articles/clarity-keyboard-uses-clojure/>

2012-2013 **SwiftKey, Research & Development**

I was a founding member of a new Research and Development team in 2012, working on a number of unreleased products in an attempt to diversify the company. Unfortunately, none of these saw the light of day for strategic reasons.

2011-2012 **SwiftKey, Senior Software Engineer**

I joined SwiftKey when it was a small company with around 20 employees and had no major contracts and a modest Android market presence. I took an active role, shaping the core of the product and influencing the UX and design. We stayed at number one in the paid charts in 50 countries consistently for 2 years before changing business model and entering the more competitive free charts.

2009-2011 CTO at LamasaTech Ltd.

One of three founding members, I developed a novel (at the time) multi-touch platform and SDK. The prototype restaurant application was used to secure private investment for the company which was used to hire an applications team of 12 people under my management. Applications developed by my team included interactive billboards, remote collaboration tools and a restaurant application which was adopted by the Crêpe Café chain in Saudi Arabia.

Original prototype: youtube.com/watch?v=GDnx8cL9RNs

Billboard: youtube.com/watch?v=6cx1kQk8qkE

Collaboration: youtube.com/watch?v=t-C7ukJvVX0

2008-2009 Freelance Android Application Programming

2005-2006 Vimuse Technologies Ltd.

I was one of the co-founders of this small technology enterprise while still at university (this wasn't part of the course). We developed a targeted marketing based social which won a number of prizes but disbanded in favour of finishing university.

EDUCATION AND QUALIFICATIONS

2007-2009 Sunderland University

First class BSc in Computing.

For my dissertation I implemented a virtual machine to interpret and run MX language code on the Android mobile phone platform. This was adopted commercially by Momote Technologies.

2005-2007 Durham University

Studied Natural Sciences – Maths, Physics and Computer Science.

1998-2005 Lancaster Royal Grammar School

A Levels: Maths (A), Further Maths (A), Physics (A)

Open source (creator)

schejulture – an idiomatic cron-style execution scheduler for clojure, written from scratch. Used in a number of high profile projects, including CircleCI

quit-yo-jibber – idiomatic clojure wrapper for the SmackTalk library, to interact with XMPP chat accounts and send messages.

mrs-doyle – a fun hack-day project for selecting a person to make the tea in an office, which has been widely used both within the SwiftKey offices and by other companies.

latest-clojure libraries – An emacs plugin (Elisp) for retrieving and automatically inserting the latest version of the dependencies for a requested library, loading it into your running program without restarting.

conf-er – Easy configuration file library for clojure

Open source (contributions)

clojure – I have contributed patches to fix issues with invalid bytecode being produced around synchronisation primitives and class static initialisers being erroneously executed at AOT compilation time. Both currently ship with clojure-android and are due to be included upstream in 1.8

lein-droid – I am a primary contributor and code-reviewer on the clojure-android project and have been instrumental in bringing the compiler and surrounding tools to production quality, leading the the first major project to ship using clojure on android with acceptable performance, size and security.

timbre – android appender; **neko** – rewrote logging framework; **lein-ancient** – added “most up to date version” feature; **congomongo** – implemented round-trippable namespaced keywords in database queries; **seesaw** – added dynamic language support to syntax highlighting text area widget

Personal projects

Gordon – a daily status chatbot for agile teams, used by all of SwiftKey. Inquires about the user's plan for the day via google talk and compiles a per-team daily status email as well as various activity reports. It tracks annual leave, automatically links to JIRA tickets and fills in details from the bug tracker. It also answers natural language questions such as “When is Adam back?”, “Who should I talk to about 'translations'?”. It has been in production for one and a half years with zero downtime, even while adding new features.

Tabula Rasa – A real time strategy game where each of the units is designed by the user, including the behaviour via a specialised virtual machine running inside each of the units. I designed and built the assembly language, machine code and virtual hardware. The design is entirely modular and scalable, allowing experimentation with new gameplay features in the middle of a game, and allowing processing to be split across multiple machines for huge world simulations. Development is ongoing.