

# Jon Sterling

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## Background

### *Reed College (Young Scholars), 2009–2010*

I studied Latin at Reed College during my last year of High School.

### *UC Berkeley, 2010–2013.*

BA in Linguistics, with interest in historical linguistics, compositional syntax & semantics, and philology (Ancient Greek, Sumerian, Akkadian, Hittite, Latin, Old English); I am particularly interested in the syntax of hyperbaton in ancient Indo-European languages, and how it corresponds with the associativity of function composition in type-theoretic grammars. During my time at Berkeley, I held a research apprenticeship cataloguing and translating Sumerian administrative records from the Ur III period (2100-1900 BCE) at Umma.

### *Skills & Interests.*

I am proficient in Haskell, Agda, Idris, Coq, Objective-C, JavaScript, TypeScript; I am also interested in OCaml, SML and Twelf. I study type theory, proof theory, (multi-modal) combinatory categorial grammar, linguistics, and digital humanities. In my free time, I implement variants of Martin-Lf Type Theory, including ETT and OTT.

## Recent Experience

### *Yardsale/FOBO, 2012–2014*

Responsible for architecture and implementation of the Yardsale and FOBO iOS client applications, along with one junior engineer; I also maintained the server code for FOBO. (Objective-C, TypeScript, Haskell)

### *Open Source Development*

**Vinyl** is a Haskell package which provides type-safe extensible records with subtyping and lenses; Vinyl is *morally* a dependently typed notion, implemented using the usual GHC suspects (type families, data kinds, and singletons).

**TT-Reflection** is a type checker for an experimental type theory which introduces strict extensional equality in manageable doses, unlike traditional Extensional Type Theory. This is my most important work!

**ReactiveFormlets** is an Objective-C library for form abstraction, backed by **ReactiveCocoa**. My work has so far involved creating a very large number of client-side data entry forms with complex validation requirements; ReactiveFormlets made it possible to achieve this rapidly and without incident.

## Other Experience

**Small Society, Summers 2010 & 2011** (iOS Engineer)