

# waltersschulze

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## location

London, UK

## programming

Golang, Lean, Coq,  
Haskell, Elm, Erlang,  
Latex, React, Rust

## open source

Katydid:  
Validation Language  
for Deeply Nested  
Structures

Goderive ★1000  
Derives Go functions

GoGraphviz ★500  
Parser for Graphviz


gogoprotobuf ★5000  
Protobufs for Go

erlfmt ★300  
Formatter for Erlang

## publications

IEEE Multimedia:  
Music Generation with  
Mixed and Higher  
Order Hidden Markov  
Models

## conferences


GopherCon UK 2022,  
2023, Devox UK  
2022, Scotsoft 2023.  
See  recorded talks


## interests


Proof Assistants  
Guitar  
Music Production  
Stand-up Comedy


## employment


2023 ...  **Meta** London, UK  
*Go Language Tooling Engineer: Golang, Thrift*



2021 – 2023  **Meta** London, UK  
*Front-end UI Engineer: React, Unreal Engine 5*  
Led the Development of a Device Manager UI for VR devices. Developed multiplayer game for Meta's Quest as part of Developer Advocate rotation. Conducted behavioural interviews. Bootcamp Manager.

2020 – 2021  **WhatsApp** London, UK  
*Erlang Language Tooling Engineer: Erlang*  
erlfmt: A code formatter for erlang, a code generator for concurrency and VSCode integration. Conducted coding interviews.


2018 – 2020  **Facebook** London, UK  
*Senior Software Engineer: Haskell, Python, Rust*  
Extended security eDSL in Haskell, which significantly reduced false positives. Integrated QuickCheck into Haxl. Maintained common test runner for all backend and mobile programming languages. Designed foundation for new test runner using a Monad with Monoid constrained elements to create a batched stream for concurrent test running. Mentored students.

2016 – 2018  **eBay Classifieds Group** Amsterdam, The Netherlands  
*MTS1 Software Engineer: Elm, Go, Docker, Filebeat, Cassandra, Kafka, Consul, Nomad, Grafana, Kibana and Jenkins*  
Developed translating reverse proxy to show eBay ads on classifieds sites, serving 2000 requests per second. Added A/B testing framework, LDAP role based login and UI using Elm. Served on the global Architecture team, conducted interviews and provided support for five local markets.

2011 – 2016  **Vastech** Stellenbosch, South Africa  
*Query Language Developer: Go, Protocol Buffers, Javascript*  
As part of a team, developed a distributed database from scratch, for fast writing of time series data. I developed the query language, matching algorithm, metadata serialization, index configuration, update method for our write only database and the UI. I founded and led the intern program and initiated the company's open source policy.

2006 – 2011  **Various companies** South Africa  
*Mobile Developer: Java*  
 [linkedin.com/in/awaltersschulze/](https://www.linkedin.com/in/awaltersschulze/)

## education

2007–2009  **MSc Computer Science (cum laude): Python** Stellenbosch University  
*A Formal Language Theory Approach to Music Generation*  
Generated music with Mixed order Hidden Markov models.

2003 – 2006  **BSc Honours Computer Science: C, Java** Stellenbosch University