# Ömer Sinan Ağacan, CV

#### Personal info

I'm a 23-year-old programmer. I write compilers and various other stuff. I'm hoping to get into programming languages research one day. Keywords: Haskell, compilers, virtual machines, programming language theory, dependent types and theorem proving, verification, open source.

Email: omeragacan@gmail.com
Github: http://github.com/osa1

*Blog:* <a href="http://osa1.net/">http://osa1.net/</a>

StackOverflow: <a href="http://stackoverflow.com/users/691032/sinan">http://stackoverflow.com/users/691032/sinan</a>

### Education

TOBB University of Economics and Technology, 2009 – 2014

# **Programming Skills**

*Languages:* Fluent in Haskell, Lua, JavaScript, Python, Java. Working knowledge of OCaml, Common Lisp, Scheme, Factor, Prolog, and C++.

Development environment: Linux, zsh, git, vim (my config: <a href="https://github.com/osa1/rcbackup">https://github.com/osa1/rcbackup</a>)

## **Projects**

Some projects I'm actively contributing/maintaining/developing:

- GHCJS (contributor) JavaScript backend for GHC
- *K Framework (contributor)* Executable semantic framework for defining programming languages
- *language-lua (owner)* Lua 5.2 lexer, parser and pretty-printer for Haskell
- *hslua (maintainer and developer)* Lua 5.1 and 5.2 interface for Haskell
- *GHC (contributor)* A state-of-the-art, open source, compiler and interactive environment for the functional language Haskell

Projects I contributed to in the past:

- *Fay* compiler from a subset of Haskell to JavaScript
- LLVM Haskell bindings

I'm also developing experimental interpreters and type checkers (with type inference) and developing 2D games with friends on some occasions (like game jams).

### Experience

Google Summer of Code for Haskell.org organization – 2014

3-month. I implemented some of GHC's profiling features(cost-centers, emulated call stacks) for GHCJS, JavaScript backend for GHC.

Soostone – 2014

3-month. I worked as a Software Engineer (Haskell).

*University of Illinois at Urbana-Champaign, Champaign, IL, United States – 2013* 3.5-month internship at Formal Systems Laboratory. We're developing K Framework, which is a rewrite-based executable semantic framework for programming languages, type systems and formal analysis tools can be defined.

Özyeğin University, Istanbul, Turkey – 2013

3.5-month internship under supervision of Prof. Baris Aktemur: Developed an interpreter for a statically typed multi-staged programming language with subtyping, row polymorphism and type inference. Performed extensive literature reading. Implemented in OCaml. Currently working on a research paper for the dissemination of results.

OBSS, Istanbul, Turkey – 2012

3.5-month internship: I developed a simple static analysis tool for GrayMound, a Java framework based on J2EE and an Eclipse plugin.

*TUBITAK (The Scientific and Technological Research Council of Turkey), Kocaeli, Turkey – 2010* 4-week internship: Developed the web front-end for PiSi, package manager of Pardus(a GNU/Linux distribution from TUBITAK).