

# Tom Sydney Kerckhove

HASKELL ENGINEER WITH OVER A DECADE OF EXPERIENCE

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This is a CV for a Haskell developer role, intended for technical readers. Please find other CVs at <https://cs-syd.eu/cv>.

## PRODUCTS

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### Social Dance Today: Party index for social dance parties worldwide

*social-dance.today*

HASKELL, NIX, NIXOPS, YESOD, BULMA

- over 3000 monthly active users
- over 1000 parties per week

### Smos: Comprehensive Self-management System

*smos.online*

HASKELL, NIX, NIXOPS, SYDTEST, QUICKCHECK, VALIDITY, YESOD, SERVANT, BRICK, BULMA

- A web UI, API server, TUI, CLI and library
- Principal part of CS SYD self-magement training

### Intray: Getting Things Done capture tool

*intray.eu*

HASKELL, NIX, NIXOPS, SYDTEST, YESOD, SERVANT

- Successfully monetised using Stripe
- Custom API-based integrations for use as a personal notification service

### Tickler: Getting Things Done tickler system

*tickler.cs-syd.eu*

HASKELL, NIX, NIXOPS, SYDTEST, YESOD, SERVANT

- Successfully monetised using Stripe

### CS SYD: Personal blog, website

*cs-syd.eu*

HASKELL, NIX, NIXOPS, YESOD, BULMA

- over 1000 monthly active readers
- more than 100 technical and non-technical blogposts

### Haskell Templates: Project starting points

*templates.cs-syd.eu*

HASKELL, NIX, NIXOPS, YESOD, SERVANT

## EXPERIENCE

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### 12+ Years of Haskell experience

### 6+ Years of Engineering Management experience

#### Technical Leader and Engineering Manager

*Remote*

CS KERCKHOVE

*2016-12 - present*

- **Research and Development Engineer**
  - Research into an inter-bank interchange format for financial contracts.
- **Technical Director and Chief Technology Officer**
  - Led a team of leaders, totalling over 40 engineers
- **Technical Leader and Senior Engineering Manager - Feeld**
  - Grew the team from 3 to 9 people in 6 months
  - Increased engineering velocity from multi-month release cycles to sub-week.
  - Reduced incidents from multiple per week to none for months.
- **Technical Leader and Engineering Manager - FP Complete**
  - Led the year-long Cardano audit project covering multiple domains on a security sensitive project, delivering monthly reports
  - Led the Hedera audit project of a fourth-generation crypto currency.
  - Defined new Quality Assurance standards for ongoing customer and internal work
  - Engineering education via webinars, blog posts, and open source activities
- **Examinator - HSR**
  - Bachelor thesis: OpenAPI3 Bindings for Stripe
  - Bachelor thesis: Codepanorama

- Master thesis: Formally verified Separation Kernel
- **Technical Writer - Human Readable Magazine**
  - Dealing with Friday the 13th - Issue 2
  - An Introduction to Property-based testing - Issue 3
- **Engineering Consulting**
  - Tyler Supervision, Niteo, Relu, E-Bot ...
- **Full-stack developer**
  - Built the site responsible for over 300K in yearly revenue, used by the parents of over 600 students for PAESMOL
- **A Pandoc REST service for Corilla**

## Mentor

GOOGLE SUMMER OF CODE

*Remote, Zürich, CH*

*2018-04 - 2018-08*

## Research Assistant; Functional Programming

ETH ZÜRICH

*Zürich, CH*

*2017-06 - 2017-09*

## Teaching Assistant: Functional Programming and Formal Methods

ETH ZÜRICH

*Zürich, CH*

*2016-02 - 2017-04*

## Software Engineering Intern

FACEBOOK

*London, UK*

*2016-06 - 2016-09*

- In-house EDSL for type-safe graph traversal queries as part of a billion-queries-per-second service
- Improved the safety of the abuse detection system to prevent millions of errors per second

## Mentor

HASKELL SUMMER OF CODE - HASKELL.ORG: GHCVM (NOW ETA)

*Remote*

*2016-06 - 2016-09*

## Software Engineering Intern

GOOGLE

*London, UK*

*2015-06 - 2015-09*

- Sped up online reconfiguration of a global service by 100x.

## Robotics Research Intern

KU LEUVEN

*Leuven, BE*

*2014-07 - 2014-09*

- Implemented a proof of concept of a combination of the HDF5 data model and the LAPACK/BLAS library in C.

## EDUCATION

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### Master of Engineering at ETH Zürich

FOCUS: PROGRAM ANALYSIS AND SYNTHESIS

*2016-09-21 - 2017-09-07*

### Erasmus Exchange at ETH Zürich

WON THE ONLY NOMINATION

*2015-09-14 - 2016-06-03*

### Bachelor of Science at KU Leuven

FOCUS: ABSTRACT MATHEMATICS

*2012-09-25 - 2015-06-19*

## LANGUAGES

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**English** Fluent

**Dutch** Native Speaker

**German** Conversational

**French** Basic words and phrases

**ASL** Basic signs and phrases