

# Tom Sydney Kerckhove

LEAD ENGINEER WITH OVER A DECADE OF EXPERIENCE

syd@cs-syd.eu github.com/NorfairKing linkedin.com/in/tomsydneykerckhove cs-syd.eu

This is a CV for individual contributor roles. Please find other CVs at <https://cs-syd.eu/cv>.

## EXPERIENCE

---

**12+ Years of Technical experience: Haskell, Nix, Rust**

**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

### Teaching Assistant: Functional Programming and Formal Methods

*Zürich, CH*

ETH ZÜRICH

*2016-02 - 2017-04*

### Software Engineering Intern

*London, UK*

FACEBOOK

*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

### Software Engineering Intern

*London, UK*

GOOGLE

*2015-06 - 2015-09*

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

### Robotics Research Intern

*Leuven, BE*

KU LEUVEN

*2014-07 - 2014-09*

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

## PRODUCTS

---

### **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

## EDUCATION

---

### **Master of Engineering at ETH Zürich**

2016-09-21 - 2017-09-07

FOCUS: PROGRAM ANALYSIS AND SYNTHESIS

### **Erasmus Exchange at ETH Zürich**

2015-09-14 - 2016-06-03

WON THE ONLY NOMINATION

### **Bachelor of Science at KU Leuven**

2012-09-25 - 2015-06-19

FOCUS: ABSTRACT MATHEMATICS

## LANGUAGES

---

**English** Fluent

**Dutch** Native Speaker

**German** Conversational

**French** Basic words and phrases

**ASL** Basic signs and phrases