Tom Sydney Kerckhove

Lead Engineer with over a decade of experience

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

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
- Succesfully 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
- Succesfully 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