# **Daniel Kirsch**

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**y** @kirel

Mathematician, Web. Data, Visualization.

Machine "dompteur" with a math diploma from University of Münster and a background in **pattern recognition** and **machine learning**. Creator of **detexify**. I am excited about data products - from the ML up to the UX. I speak many programming languages - preferrably functional ones.

## EDUCATION

10/2003 - 11/2010

#### University of Münster

Diploma in Mathematics / Computer Science Ø 1.5

Thesis (1.3): »Detexify: Recognition of hand-drawn LaTeX symbols« implemented as a RESTful webservice written in Haskell and Ruby using machine learning techniques. Samples are stored in CouchDB. See http://detexify.kirelabs.org.

1993 - 2002

Gymnasium Laurentianum Warendorf

Abitur Ø 2.0

### **@ EXPERIENCE**

#### smartB

Energy Management GmbH

8/2014 - 3/2015

#### **Hitfox Group**

Incubator building companies and careers

6/2014 - 7/2014

#### **Zweitag GmbH**

Ruby on Rails Consultancy

8/2009 - 5/2014

#### Data Analyst & Visualization Expert

- Translation of business requirements into suitable technical solutions
- Leading frontend development (Project Management, Node, D3, Angular) and building APIs and the data pipeline (Python, Pandas) for our smart meters and NILM results
- Drafting and implementing a DevOps process and best practices with Ansible

#### Data Scientist

- Prototyped a Big Data architecture in a Telco context
- Supported a new FinTech venture by prototyping the backend architecture and implementing the MVP with Rails

#### Software Developer

I was involved in a variety of projects ranging from ecommerce sites and auction systems to business intelligence tools. I worked on the **Rails** backend as well as with frontend technologies such as **Haml**, **SASS**, client-side **Javascript**-frameworks and **D3.js** for data visualization.

#### Responsibilities & Achievements

- Helped establish TDD/BDD as a company best-practice (Rspec, Capybara, Jasmine)
- Introduced **Angular.js** as a core technology in Zweitag's projects
- (Co-)authored the software QA-process (code review)
- (Co-)authored and coordinated the corporate **mentorship** program
- Evaluated prospective interns and student workers and (co-)authored best-practices regarding the hiring process
- (Co-)authored training materials for interns and new hires

#### Visualization and Computer Graphics Research Group of the University of Münster

of the offiversity of Muliste

10/2008 - 3/2009

#### Student worker: Voreen Volume Rendering Engine

Worked on the medical imaging engine Voreen in C++ and OpenGL.

#### Databases and Information Systems Group

of the University of Münster

11/2008 - 3/2009

# Institute of Mathematical Statistics

of the University of Münster

10/2007 - 10/2008

#### Student worker: Project Learnr

Built a RESTful webservice for managing assets for an E-Learning platform using Ruby on Rails.

#### Tutor in stochastics / probability theory

Tutorials and correction of student homework.

## VOLUNTARY EXPERIENCE

**TBA** 

We are in the process of founding a new organziation promoting data science for social good. See 12/2014 - present

http://dssg-berlin.github.io/ for more details.

Open Knowledge Lab Münster

Code for Germany

2/2014 - 12/2014

in a local community revolving around civic tech and open data. See http://codefor.de/muenster for more details.

Responsibilities

Organize local meetups

Stav in touch with local government and journalists

Guide the participants towards common goals

**Monster on Rails** Speaker

at the local Rails user group with talks on

Angular.js

Functional Javascript

Occasional contributor **Open Source** 

See http://github.com/kirel

Track&Field Manager Young Athletics (Sportwart Nachwuchs) LG Brillux Münster

10/2011 - 5/2014 Responsibilities

• Organisation and supervision of track&field competitions

Creation and implementation of young athletics nurturing programs

Uniting coaches of the LG by shaping the mutual vision

Track&field coach TuS Hiltrup 1930 e.V.

Coaching young athletes between ages 12 to 19 especially in vertical jumps and pole vault. Earned 8/2006 - 5/2014

several qualifications and final places in the German youth nationals.

Track&field coaching license (C-Lizenz) FI VW

8/2006

Heinrich-Tellen-Schule

in Warendor

Community Service

at a school for special education.

8/2002 - 6/2003

## **△ INTERESTS**

- Data Science for Social Good
- Data visualization
- Machine learning
- FP (Haskell, Clojure, R, Elixir, ...)
- Open data / data-driven journalism

See http://kirelabs.org for personal projects.

- Behavioral Science
- Lean startup-methods
- Reading technical books
- Longboarding, wakeboarding, kitesurfing
- Pole vaulting

## REFERENCES

Julian Schneider, CEO and Founder at Zweitag GmbH (http://www.zweitag.de/de/team)

was my boss at Zweitag GmbH.

Peter Großkopf, Founder at Zweitag GmbH (http://www.zweitag.de/de/team) was my boss at Zweitag GmbH and organized Monster on Rails.

Prof. Dr. Xiaoyi Jiang (http://cvpr.uni-muenster.de/organisation/jiang.html)

supervised my diploma thesis at University of Münster.