

# Daniel Kirsch

Mathematician. Full Stack Web Developer.

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@kirel

**Data Scientist** at Hitfox Group with a math diploma from University of Münster and a background in **pattern recognition** and **machine learning**. Creator of **detexify**.

## 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

### Hitfox Group

Incubator building companies and careers

6/2014 - present

### Data Scientist

#### Responsibilities & Achievements

- Supporting a new **FinTech** venture by prototyping the backend architecture and implementing the **MVP** with **Rails**
- Prototyping of a **Big Data** architecture in a **Telco** context

### Zweitag GmbH

Ruby on Rails Consultancy

8/2009 - 5/2014

### Software Developer

I worked on a variety of projects ranging from ecommerce sites and auction systems to business intelligence tools with data visualisations using **D3.js**. Zweitag applies behaviour driven development using **Rspec**, **Capybara** and **Jasmine**. As well as working on the **Rails** backend I am proficient with frontend technologies such as **Haml**, **SASS** and client-side **Javascript**-frameworks.

#### Responsibilities & Achievements

- Helped establish **TDD/BDD** as a company best-practice
- 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

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

### Student worker: Project Learnr

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

### Institute of Mathematical Statistics of the University of Münster

10/2007 - 10/2008

### Tutor in stochastics / probability theory

Tutorials and correction of student homework.

## VOLUNTARY EXPERIENCE

### Monster on Rails

#### Speaker

at the local Rails user group with talks on

- Angular.js
- Functional Javascript

### Open Source

#### Occasional contributor

See <http://github.com/kirel>

### LG Brillux Münster

10/2011 - 5/2014

#### Track&Field Manager Young Athletics (Sportwart Nachwuchs)

##### 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

### TuS Hiltrup 1930 e.V.

8/2006 - 5/2014

#### Track&field coach

Coaching young athletes between ages 12 to 19 especially in vertical jumps and pole vault. Earned several qualifications and final places in the German youth nationals.

### FLVW

8/2006

#### Track&field coaching license (C-Lizenz)

### Heinrich-Tellen-Schule

in Warendorf

#### Community Service

at a school for special education.

8/2002 - 6/2003

## INTERESTS

- Reading technical books
- Data-driven decision making
- Open data / data-driven journalism
- Functional programming
- Pole vaulting
- Lean startup-methods
- Machine learning
- Data visualization
- Longboarding, wakeboarding, kitesurfing

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

## REFERENCES

Julian Schneider, CEO and Founder at Zweitag GmbH (<http://www.zweitag.de/de/team>)  
is my boss.

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

Prof. Dr. Xiaoyi Jiang (<http://cvpr.uni-muenster.de/organisation/jiang.html>)  
supervised my diploma thesis at University of Münster.