Kristian Slabbekoorn

Software engineer

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http://ktslabbie.github.io

Education

2012–2016 **Ph.D**, *Tokyo Institute of Technology*, Tokyo, Japan.
Thesis subject: discovering topic hierarchies on the Social Web using taxonomy-assisted unsupervised machine learning techniques

2010–2012 **MSc. Computer Science**, *Delft University of Technology*, Delft, The Netherlands.
Thesis subject: domain-aware ontology matching on the Semantic Web

2005–2010 **BSc. Computer Science**, *Delft University of Technology*, Delft, The Netherlands.

Experience

Employment

2015–current **Senior software engineer (2017–current),**
Software engineer (2015–2017), *Gilt Groupe Japan*, Tokyo, gilt.jp.

Headed the services team at Gilt Japan, which is responsible for developing the back-end Web services driving the Gilt fashion flash sale e-commerce site. Notable contributions include:

- Design and development of a production-grade personalization and recommendation engine based on collaborative filtering, currently used for sale and product recommendation and personalized auto-complete. It has provided a significant boost to conversion rates.
- Design and development of a distributed job system based on Redis, providing a simple way of scheduling and running tasks across multiple instances or services. It is a pivotal component in the architecture that allows easy scaling of expensive tasks, such as the concurrent sending of millions of emails and push notifications at peak times.
- Major improvements and additions to email/notification services, including the development of a Web-based internal tool to allow the creation and scheduled sending of custom emails to user-defined segments of members. It has allowed significant cost-saving by cutting out third-party providers.
- Migration of the infrastructure from bare-metal servers to the cloud (AWS), dealing with challenges such as reduced processing power and memory and increased horizontal scaling, refactoring/removal of legacy components, automation of build and deployment, Docker containerization, zero-downtime migration, and more.
- Design and development of an AWS-based, serverless workflow for tracking millions of page views from the web and mobile app daily and preparing them for analytics, using Kinesis for transport, Glue (Apache Spark) for ETL, S3 for storage and Redshift Spectrum for querying. It has provided a low-cost alternative to Google Analytics with significant cost savings ($100k+ per year).

Other responsibilities include coordination with other development teams to design and implement new features, communication with Japanese-speaking non-technical teams to resolve issues and requests, and interviewing and training of new hires.

Key technologies: Java, Scala, PostgreSQL, Javascript, Angular, Ruby, Redis, Elasticsearch, Docker, AWS

2014–2015 **Co-founder**, *Solve K.K.*, Tokyo, solvelocalization.com.

Helped found a mobile app localization and marketing company, where I was responsible for:

- The creation and maintenance of company Web resources;
- App Store analysis and app marketability research;
- English-to-Japanese localization assistance;
- Meetings and negotiations with overseas clients;
- Mentoring of interns.

2008 **Software engineer**, *European Union eBIT Project, CICAT TU Delft*, Delft.

Developed the front-end of a Microsoft Office proficiency assessment tool. The application has seen real use in screening applicants at the University of Colombo, Sri Lanka.
Key technologies: PHP, HTML/CSS/Javascript, XML/XSLT, MySQL

Selected personal projects

2014 **The Willy Report**, willyreport.wordpress.com.

Authored the influential Willy Report, which analyzes trading logs from the collapsed Mt. Gox Bitcoin exchange to show that fraudulent bots were likely related to Bitcoin's $1200+ price bubble and the exchange's loss of over $400 million worth of Bitcoin. The report received worldwide media attention and is still referenced on a regular basis.
Featured in: *The Guardian*, *International Business Times*, *TechCrunch*, and more.

2013 **Midas: machine learning-based Bitcoin trading**, github.com/ktslabbie/Midas.

Midas is a Chrome plugin that implements a real-time trading algorithm based on technical analysis, using supervised machine learning on historical data to train a regression model.
Key technologies: HTML/CSS/JS, Machine learning, Bitcoin, Chrome plugin development

Languages

English	**Fluent**	*TOEIC score: 990 (2012)*
Japanese	**Professional**	*JLPT N1 (2009)*
Dutch	**Native**	

Skills

Languages	*Expert*: Java *Strong*: Scala *Good*: Javascript, Python, Ruby
Platforms	Git, Github, Amazon AWS, JIRA
OS	OSX, Linux, Windows
Frameworks / Libraries	Jetty/Jersey/Jackson, Guice, Lombok, MyBatis, AngularJS, Play, Rails, Spark, Node.js/Express
Storage	PostgreSQL, Redis, Elasticsearch

Selected publications

- **Slabbekoorn, K.** *Ontology-Assisted Methods for the Detection and Clustering of Hierarchical Topics on the Social Web*. Doctoral Thesis, 2016
- **Slabbekoorn, K., Noro, T., Tokuda, T.** *Ontology-Assisted Discovery of Hierarchical Topic Clusters on the Social Web*. Journal of Web Engineering (JWE). 15. 361-396, 2016
- **Slabbekoorn, K., Hollink, L., Houben, G.J.** *Domain-Aware Ontology Matching*. Proceedings of the 11th Intl. Semantic Web Conference (ISWC), 2012