

# Samuel Murray

---

Lillåkersvägen 36, 181-59 Lidingö, Sweden  
samuel.murray@outlook.com  
+46 76 822 3621  
samuelmurray.github.io

## PERSONAL SUMMARY

Graduate student in machine learning with a strong mathematical background.  
Runner, hobby musician, board game enthusiast.

## EDUCATION

*Ph.D. Computer Science* October 2017 - Present  
**KTH, Stockholm**

Specialisation in machine learning with focus on probabilistic models

*M.Sc. Machine Learning* September 2015 - September 2017  
**KTH, Stockholm**

Courses in machine learning, computer science and mathematics

*Invited Researcher* February 2017 - June 2017  
**National Institute of Informatics, Tokyo**

Master's thesis - *Real-Time Multiple Object Tracking: A Study on the Importance of Speed*

*B.Sc. Engineering Physics* September 2012 - June 2015  
**KTH, Stockholm**

Broad program in mathematics, physics and computer science

*Exchange Semester* January 2015 - June 2015  
**EPFL, Lausanne**

Bachelor's thesis - *Orienting Graphs and Hypergraphs*

*Ritsumeikan Summer Japanese Program* July 2014 - August 2014  
**Ritsumeikan University, Kyoto**

Japanese language course, A2 level

## KEY SKILLS

*Languages:* Python, C++, Java, MATLAB, Spark, C#, Prolog  
*Machine Learning Libraries:* TensorFlow, PyTorch, GPy  
*Software & Tools:* Git, TravisCI, pytest, Codecov  
*Theory:* Gaussian Processes, Bayesian Modelling, Deep Learning

## EMPLOYMENT

*Summer Intern - Developer* June 2016 - August 2016  
**Ericsson, Stockholm**

- Set up and evaluated a streaming pipeline for big data analytics, together with two other interns.
- The aim of the project was to construct a pipeline for streaming data, using tools such as Apache Hadoop, Spark, Kafka, Elasticsearch and Kibana. This was done from scratch in a distributed manner using a cluster of three nodes. As an example use case, real time anomaly detection of streaming data was implemented in Apache Spark. Not only did this project give me hands-on experience of the tools used, but it also made me comfortable working in a

Unix environment. Additionally, a lot of freedom and responsibility was given to us interns, which made planning and team work an important factor.

*Teaching Assistant*  
**KTH, Stockholm**

August 2013 - August 2015

- Held classes and help sessions for first year students' introductory course in mathematics.
- Since all incoming students had very different backgrounds in mathematics, one of the biggest challenges for me was to make sure that no student got left behind. As the purpose of this course was to make sure that all students would manage the coming math courses, I spent most time going through the concepts at a basic level, and then aided students individually if they got stuck.

*Private Tutor*  
**Studybuddy, Stockholm**

March 2013 - June 2014

- Did homeschooling for individual students, in pre-university mathematics and physics.
- Held intensive courses in mathematics which helped students prepare for the national tests.
- All of my students were very ambitious, and already at a high level. This meant that my task was not to teach them basic formulas, but rather to train them in how to approach difficult problems, and how to use their knowledge in a structured way.