

Thomas Kobber Panum

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EDUCATION

- 2017–Present** **Aalborg University**, Ph.D. in Electronic Systems
- Thesis: Improving Robustness of Automated Phishing Detection
 - Advisors: Professor Jens Myrup Pedersen, Professor René Rydhof Hansen
- 2012–2014** **Aalborg University**, M.Sc. in Machine Intelligence
- Thesis: Temporal Illness Prediction using a Bayesian Model
 - Advisor: Nicolaj Sønderberg-Jeppesen
- 2009–2012** **Aalborg University**, B.Sc. in Software Engineering

EXPERIENCE

- Jan–Dec 2017** **Data Scientist**, Tryg Insurance
- Employed as the first data scientist at Tryg, the largest insurance company in Denmark
 - Responsible for defining requirements to infrastructure and methodology
 - Made proof of concepts of applied machine learning that, in an A/B-test, demonstrated to be valuable
- 2015–2017** **Data Scientist**, Ecsact
- Applied machine learning techniques to insurance data in order to predict business attributes
 - Improved scheduling of a \$200 million logistic process for a company using machine learning
 - Designed a high-performance web data retrieval tool, capable of bypassing Google's reCAPTCHA
- 2012–2015** **Teacher**, Aalborg University
- Supervised over 30 students throughout their 15-ETCS projects, and held their exams
 - Educated non-technical students in: System Design, UML, and Web Programming
- 2013–2014** **R&D Engineer**, Enversion
- Designed the first illness classification model in Denmark based on data from one million patients
 - Proved statistical patterns in previous unexplored blood sample data for over 10.000 illnesses
 - Benchmarked and enhanced existing SQL-oriented data manipulation of data warehouses

TEACHING

Courses

- Secure Software in Practice (Spring 2019), co-instructed with René Rydhof Hansen
- Principles of Operating Systems and Concurrency (Spring 2018 & 2019), guest lecture on security
- Web Application Security (Autumn 2018), co-instructed with René Rydhof Hansen
- Secure Software (Autumn 2018), co-instructed with René Rydhof Hansen
- Traffic Analysis and Network Security (Autumn 2017), guest lecture for machine learning

Supervision

- Software Engineering (Spring 2019), 15-ETCS project across six fourth semester students
- Computer Science (Spring 2018), 15-ETCS project across six fourth semester students
- Software Engineering (Spring 2015), 15-ETCS project across 31 fourth semester students

PRESENTATIONS

Machine Learning: The Unspoken Part, explanation of open security issues with machine learning (April 2019)

- Wiley, Copenhagen
- LEGO, Billund
- Copenhagen Business Academy, Lyngby
- IDA, Aalborg
- AspIT, Aalborg
- Zealand, Slagelse
- IUM, Copenhagen
- IDA, Copenhagen

DISSEMINATION

- Wrote the article “Artificial Intelligence does also suffer from human mistakes” for videnskab.dk
- Designed a security education platform that received funding for employment of a full-time postdoc researcher.

PUBLICATIONS

Kraaler: A User-Perspective Web Crawler. [Thomas Kobber Panum](#), René Rydhof Hansen, Jens Myrup Pedersen. Accepted at TMA 2019.

Haaukins: A Highly Accessible and Automated Virtualization Platform for Security Education. [Thomas Kobber Panum](#), Kaspar Hageman, Jens Myrup Pedersen, René Rydhof Hansen. Accepted at IEEE ICALT 2019.

REFERENCES

Available upon inquiry.