

Curriculum Vitae

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Summary

I am a PhD student at the Copenhagen Centre for Social Data Science (SODAS, University of Copenhagen) with a masters degree from the Technical University of Denmark (DTU) in Digital Media Engineering. I am a former data scientist at Trustpilot, and seasoned teaching assistant at DTU. I completed my master thesis at the Weizmann Institute of Science in Israel under supervision of renowned physicist Uri Alon (+35k citations, 2 Ted Talks), investigating personality archetypes in large Big Five datasets. I won the inaugural *Data Stories* visualization contest hosted by Science Magazine in 2016 for a my work on interactive visualization of social aggregation patterns. I am a highly driven and inquisitive individual, passionate about challenges and novel learning experiences. I can apply state-of-the-art data analysis tools to large datasets and I am an expert Python programmer. I care about intuitive design and universally comprehensible science and have a thorough theoretical understanding of concepts in machine learning, non-linear signal processing and statistics.

Education

2016–	PhD, Copenhagen Centre for Social Data Science. UCPH (University of Copenhagen)
jan.-jun. 2016	Visiting student researcher, Uri Alon Lab. WIS (Weizmann Institute of Science), Rehovot, Israel
2014–2016	M.Sc.Eng., Digital Media Engineering. DTU (Technical University of Denmark) Average: 11.3 (GPA: 3.9) Thesis: 12 (A)
2012	Student exchange, Physics and Nanotechnology. NUS (National University of Singapore)
2010–2014	B.Sc.Eng., Physics and Nanotechnology. DTU (Technical University of Denmark). Average: 8.1 (GPA: 3.0) Thesis: 12 (A)
2007–2009	Upper secondary programme, Mathematics/Physics. Gribskov Gymnasium Average: 10.0 (GPA: 3.3)

Technical skills

<i>Programming</i>	Python , R, MATLAB , JavaScript, TypeScript, C#, Swift (iOS)
<i>Database systems</i>	SQL, NoSQL, Neo4j (graph databasing)
<i>Tools & software</i>	D3 , Hadoop MapReduce, Apache Spark, Amazon ML, Blender
<i>Other</i>	HTML, CSS, LaTeX, RegEx, Git , OpenFOAM, Unix Shell , HPC

Work Experience

jun.–dec. 2015	Data Scientist (part time) Trustpilot A/S, Copenhagen Data analysis and software development using Python, R and C#. Working with machine learning algorithms to detect fake reviews on Trustpilot. This job started as an internship.
2014–2015	Consultant Animation Artist Sterlitech Corporation, Seattle/Web Producing 3D animation videos using Blender, Python and HPC technology, as substitutes for live product demos.
jan. 2013–	Teaching Assistant DTU (Technical University of Denmark), Lyngby Teaching assistant in 'Physics 1' (jan. 2013–jun. 2015) and 'Computational Tools for Big Data' (aug. 2015–). In-class problem solving assistance and correction of homework.
2011–2013	Review Analyst Popular AB, Stockholm/Web Picking out good quotes from movie and album reviews. Developing visual assistance tools using JavaScript and Python.

Volunteer work

apr. 2015	Member of the Board of Appeals DTU (Technical University of Denmark), Lyngby Partaking in re-evaluation of exam projects in the course '42490, TEMO'.
dec. 2013/14	Pre-exam tutoring DTU (Technical University of Denmark), Lyngby Helping students understand key concepts in the course 'Physics 1'.
2010-2012	Handicap Dancing Instructor Aftenskolen v/ Lis Cronberg, Hillerød Weekly dancing lessons with mentally and/or physically handicapped people of all ages.
2010–	Writer/Editor Wunderbaum Magazine, Copenhagen/Web Sporadically committing articles/edits to this biannually published skateboard magazine.
2008-2010	Music Booker Toldkammeret, Helsingør Responsible for booking bands and arranging events for an indie music club. We hosted artists such as Fallulah, Analogik, Vinnie Who and When Saints Go Machine.

Recommendations

aug. 2015	<p><i>"Ulf was a very active student contributing in lectures as well as in practicals and in the laboratory. In addition to his professional contributions I got a very good impression of Ulf as an engaged and well-liked student. (...)"</i></p> <p>– Carsten Knudsen, Senior Executive Education Officer, DTU Physics</p>
jan. 2014	<p><i>"He is a quick learner and very open to venture into new scientific disciplines. His interdisciplinary interest profile is highly beneficial for complex projects involving both academic and industrial partners. In addition he has an easy-going personality with a good flair for team-work which is essential in our type of project. (...)"</i></p> <p>– Claus Helix Nielsen, Vice President, Aquaporin A/S</p>
feb. 2012	<p><i>"Aslak is a bright, inquisitive student, cheerful, always well prepared, and always extremely thorough with homework. He very quickly acquired a remarkable grasp of the central points and techniques in the not always trivial material, and proceeded to get top marks at the written exam. (...)"</i></p> <p>– Poul Hjorth, Associate Professor, DTU Mathematics</p>

Miscellaneous

Publication

jan. 2016 | “Open-source CFD model for optimization of forward osmosis and reverse osmosis membrane modules”, **Separation and Purification Technology**

Conference

jul. 2016 | Participation in the SIGGRAPH conference in Anaheim, California. Participated in various workshops and connected with business professionals and companies.

nov. 2014 | Talk on CFD optimisation of membrane modules, **DRWIP2014** (Danish Water Research and Innovation Platform 2014), Copenhagen

Competitions

may 2016 | Winner, **Data Stories**, Science Magazine Visualization Competition

feb. 2015 | Finalist, **EBEC15**, European BEST Engineering Competition

jun. 2014 | 4th place, **DTU Grøn Dyst**, Environmental Engineering Competition

Projects

jul. 2016 | “Personality archetypes support evolutionarily important behavioral strategies”, **Master thesis project**
Inference of behavioral strategies from personality archetypes in large datasets. Conducted at the Weizmann Institute of Science in Israel under supervision of Uri Alon. Awarded the highest mark. https://ulfaslak.com/portfolio/master_thesis.pdf.

dec. 2015 | “Communities in temporal networks”, **Interactive visualization**
Interactive visualisation, for exploring temporal group formation patterns of university students. Developed with D3.js and Python. The project won the 2016 Data Stories competition in Science Magazine. <http://ulfaslak.com/portfolio/Visualisation/>.

aug. 2015 | “Membrane Testing System Tutorial”, **Animation video**
Instructive animation video made in Blender, illustrating how to use the Sterlitech Sepa CF Membrane Testing System. Displayed at <https://youtu.be/C6vvIFsd464>.

jun. 2015 | “Analysing bias patterns in the movie reviewing community”, **Visualisation**
Visualisations showing rating bias patterns among movie critics across the world, based on review data scraped from [rottentomatoes.com](http://www.rottentomatoes.com). The project is exhibited on http://cwii.frwaw.itu.dk/movie_critics/.

dec. 2014 | “Predicting the Danish Parliament”, **Machine Learning**
A web service that allows users to enter information about a law proposition, and get instant predictions on how different members of parliament are going to vote. Available at http://ec2-54-68-181-171.us-west-2.compute.amazonaws.com:8000/query_folketinget/.

dec. 2014 | “Why do people follow bots?”, **Machine Learning**
An exploratory study in which we created a Twitter bot and attracted over 2000 followers, such as to study the mechanisms that drove them to follow us. Available at <http://ulfaslak.com/images/sigproc-sp.pdf>.