Elias Erdtman

CV

Personal summary

I am a PhD licentiate in mathematical statistics that possess a keen interest in programming. My experience includes database development and providing technical support for medical technology companies. I am actively seeking new challenges where I can contribute to society and continue to grow professionally and personally.

Work experience

2019–2023   **PhD student**, *Linköping University*, Linköping.

80% research and 20% teaching.

At the Mathematical institution at the department of applied mathematics there is a wide variety of topics that is actively taught and researched. My research was in the field of mathematical statistics with a focus on developing a simple change detection algorithm with respect to variance. The research consisted of the construction and analysis of an algorithm looking at the amount of extreme values to tell if a change has occurred. The main part of the analysis was to construct a theoretic foundation of how well the algorithm should work. This was done by deriving a distribution for an extreme observation for a given change in variance. To check if the theory added up we made a small simulation study in R. The teaching was both basic statistics for engineers and an advanced course in statistical modeling with regression methods with implementations in R.

2016–2019   **Support Engineer - PACS**, SECTRA, Linköping.

Sectra provides a RIS and a PACS system to hospitals all over the world. As a second line support engineer, I solved advanced problems in the system for customers by searching in databases and log files, both the program logs and the computer logs. For this all your curiosity and knowledge about computer systems helps. If the problem was suspected to be an error in the program, we escalated it to the developers.

2013–2016   **Data Engineer**, CAMBIO HEALTHCARE SYSTEMS, Linköping.

Cambio is a company that provides the electronic patient registration system, COSMIC. As a data engineer, I create ETLs from the production database to the reporting database and support customers in the use of the reporting database.

I was involved in developing data marts for the following national reports

- Sweden - PAR - PATIENT REGISTER
- United Kingdom - CDS, COMMISSIONING DATA SET
- United Kingdom - MSDS, MATERNITY SERVICE DATA SET

2008–2012   **Amanuens**, LINKÖPING UNIVERSITY, Linköping.

Various teaching tasks at the Department of Mathematics, summarised as helping students with their studies in math.

2006–2006	**Military service**, FÖRSTA AMFIBIEREGEMENTET, Stockholm.
	Responsible for the radio in a small squad supplying operating a light weight robot system to stop larger boats in the archipelago around Stockholm.

Education

2019–2023	**PhD Licentiate in Mathematical statistics**, *Linköping University*, Linköping.
	Thesis: CHANGE POINT DETECTION WITH RESPECT TO VARIANCE
	urn:nbn:se:liu:diva-197257
2011–2012	**Masters of Science in Mathematics**, *Linköping University*, Linköping.
	Thesis: TENSOR RANK
	urn:nbn:se:liu:diva-78449
2007–2010	**Bachelor of Science in Mathematics**, *Linköping University*, Linköping.
	Thesis: VISUALISERING AV KRÖKNING
2002–2005	**Gymnasium - Natural Science specialization in computer science and mathematics**, *Teknikum*, Växjö.

Computer skills

Advanced	T-SQL, R
Intermediate	C++, PYTHON, LaTeX
Basic	JAVA, C#,MATLAB

Languages

Swedish	**Native language**
English	**Fluent**

Commitments

2021–2023	Board member in a local sports club, LINKÖPING OCR
2016–2020	Responsible for managing bookings and trial events for groups and individuals, LINKÖPING KLÄTTERKLUBB
2010–2020	Volunteer in the local climbing gym that a non-profit association drives, LINKÖPING KLÄTTERKLUBB
2015–2017	Treasurer of a non-profit parkour association, LINKÖPING PARKOUR
2013–2016	Member of the election committee in a congregation in Linköping, Ryttargårdskyrkan

Interests

- Climbing
- Obstacle course racing
- Reading
- Programming
- Wood craftsmanship