

Key interest, Qualifications and Knowledge.

Fields of expertise Mathematics, Technology and IT, Economics, Finance, Accounting and Management, Innovation and Strategy.

Personal traits Strong mathematical skills, strong software engineering skills, strong analytical, problem-solving and communication skills, very good at acquiring knowledge, logical and structured, cooperative, reflected and rational with good people skills.

Experience

2021- **CTO and Co-founder**, *Aeda*, Data Sharing

Create data and model platform on Azure with Databricks and DLT. Create API and services on azure for consumption and transformation of data and models. Reporting system. Modeling infrastructure and MLOps.

2021- **Senior Manager**, *Analytika*

Modeling, Azure, Databricks, SQL, Python, Denodo, Api, Docker, DevOps, Azure DevOps, Azure Functions, Azure Machine Learning, Large Language models, Initiate moving insurance models from excel to python/databricks, Setting up model infrastructure.

2018-2021 **CDO**, *FinstartNordic*

2016- **CDO**, *Holli*

2016-2018 **CDO**, *Monner*

2014-2016 **Quant**, *DNB quant/modelling/risk group*

Responsible for maintenance/update of parts of group portfolio risk analysis model. Statistical and economic analysis of portfolio risk levels and confidence intervals. Analyzing credit and portfolio risk to ensure compliance with Basel (I,II,III).

2008-2009 **Part-time actuarial consultant**, *Akutuarene*

Developed a Java enterprise client-server program with Java SWING GUI for statistical analysis and graphical presentation of pension portfolio.

2005 **Intern**, *Worthy Jobs*, Singapore

Consultant for a startup. Technical, financial and strategic analysis.

Education

2009–2013 **Mathematics**, *UiO*, *Ph.D*

Stochastic analysis/mathematical finance. A quarter teaching responsibilities. CMA.

Spring 2013 **Visiting Researcher**, *Courant Institute*, *New York*

Visitor research with S.R.Srinivasa Varadhan (Abel prize winner) at NYU spring 2013.

2007–2009 **Mathematics, Modeling and Data Analysis**, *UiO*, *M.Sc*

Mathematical finance and stochastic analysis.

2005–2007 **Bachelor Courses in Mathematics**, *UiO*

2005–2006 **Information Technology**, *UiO*, *M.Sc*

Programing, algorithms, efficiency and technological management.

- 2005–2005 **Grunderskolen (Entrepreneurship Program)**, UiO
Technology, innovation and management at National University of Singapore (NUS).
- 2001–2004 **Informatics**, QUT, B.Sc
Software development, programing and management. Australia.

Courses

- 2015 **Basel Models and Validation**
Design and Development.

Doctoral Thesis

Title: *Stochastic control and optimal stopping for non-Markov processes with infinite horizon and related topics.*

Supervisor: Frank Proske and Bernt Øksendal.

Description: Optimization, Financial Mathematics, Risk measures, *Lévy*-markets, Fractional Brownian Motion.

Master Thesis

Title: *Risk Measures and Differential Games.*

Supervisor: Bernt Øksendal.

Description: Risk measures, *Lévy*-markets, Null-sum games, Nash-equilibrium, Optimization.

Master Thesis

Title: *A case study on factors that influence capital acquisition decisions in Norway.*

Supervisor: Henrik Berglund.

Description: How to finance technological start ups. Venture capital and angel investors.

Projects

- 2005 **Resource person under Pang Start**
An intensive course for startups organized by the government.
- 2005 **Wrote business plan**
Wrote a Business plan for a mobile advertising firm.
- 2004 **Project leader**
Developed, with a team, a virtual, mobile timetable for Queensland Transport.

Mathematical Experience

Mathematical Finance, Statistics, Risk Measures, Monte Carlo, Regression - Linear, Logistic and Non-Linear, Inference, Time Series Analysis, Bootstrapping, Brownian Motion, Optimization, PDE, SPDE, SDE, Banach Valued Processes, White Noise, Fractional B.m., Manifolds, Rough Paths.

Information Technology Experience

Experienced: Python, Tensorflow, PyTorch, Keras, GCloud, Azure, AMZ, Java, SQL, SAS, R, Matlab, C++, C.

Basic: Assembler, OpenGL, JBuilder, Haskell,
C#, Design/Testing

Prizes, Awards and Networks

Dean's List: *Dean's list QUT.*

Golden Key: *Top percentage of examinees.* See www.goldenkey.org

Nova100: *Talent network for top students.* See www.nova100.no

Publications

N. Agram, S. Haadem, B. Øksendal, and F. Proske. A maximum principle for infinite horizon delay equations. *SIAM Journal on Mathematical Analysis*, 45, 2013.

F. Bagheri, S. Haadem, B. Øksendal, and I. Turpin. Optimal stopping and stochastic control differential games for jump diffusions. *Stochastics An International Journal of Probability and Stochastic Processes*, 85:85–97, 2012.

S. Haadem. Risk measures and differential games. *Duo*.

S. Haadem. A maximum principle for fractional diffusion processes with infinite horizon. *arXiv:1206.3432v2*, 2012.

S. Haadem, B. Øksendal, and F. Proske. Maximum principles for jump diffusion processes with infinite horizon. *Automatica*, 49:2267–2275, 2012.